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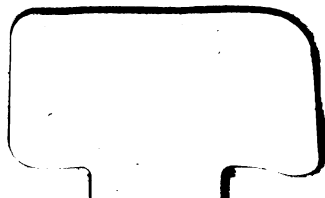
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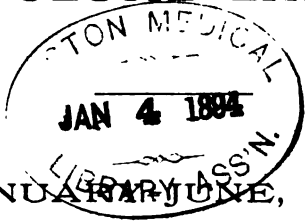




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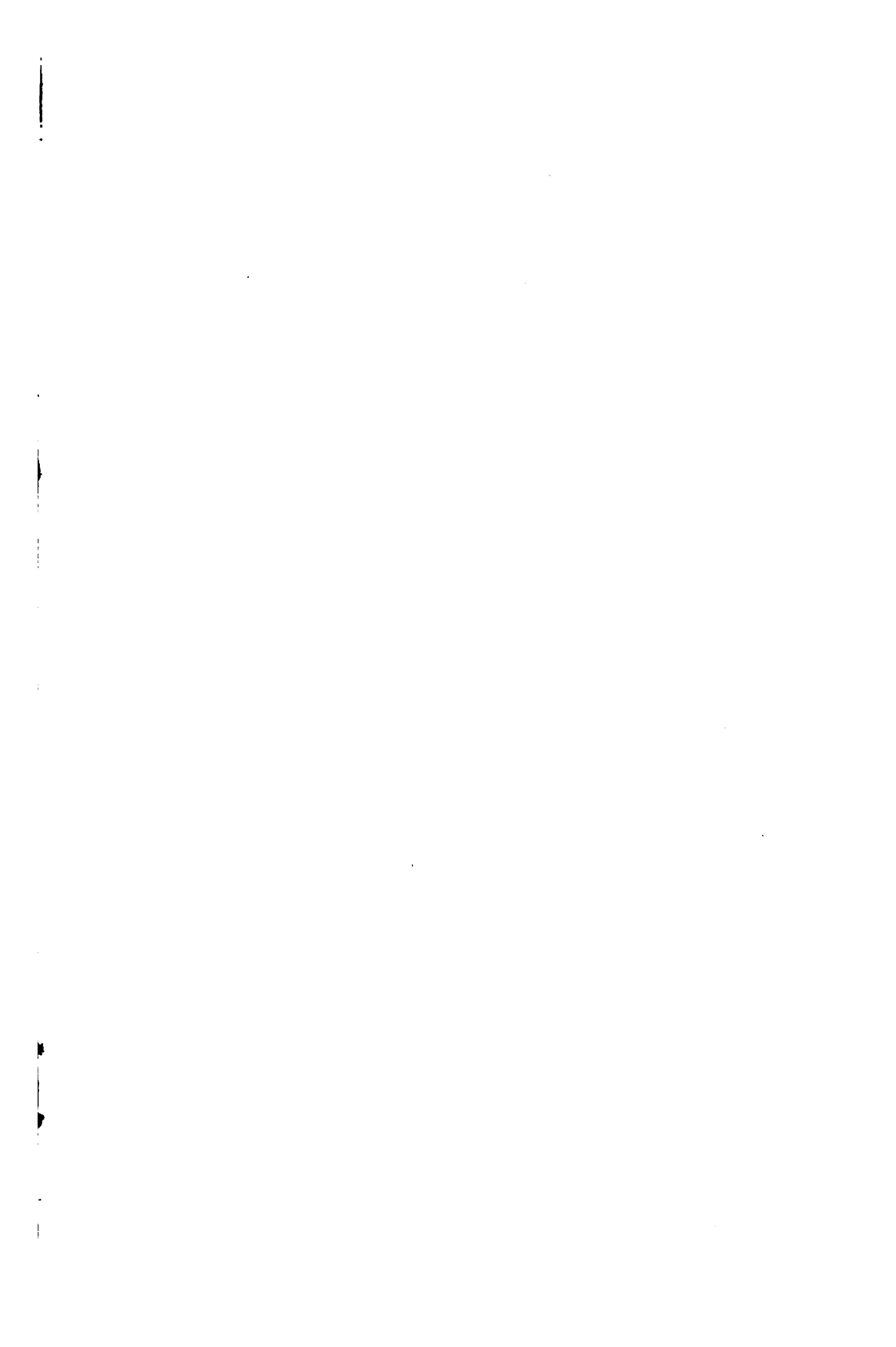
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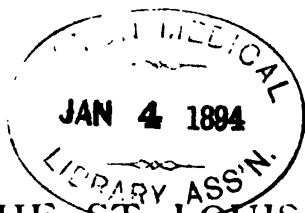
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FORMATION, NUMBER AND SERVICES OF THE MEDICAL CORPS OF THE ARMY AND NAVY OF THE CONFEDERATE STATES DURING THE WAR BETWEEN THE NORTHERN AND SOUTHERN STATES, 1861-1865. By JOSEPH JONES, M. D., L.L. D., of New Orleans, Louisiana. Surgeon P. A. C. S. 1861-1865. Major-General and Surgeon-General United Confederate Veterans, 1890-1893.

FORMATION OF THE MEDICAL CORPS OF THE CONFEDERATE ARMY AND NAVY.—The entire army of the Confederate States was made up of volunteers from every walk of life, and the Surgical Staff of the army was composed of general practitioners from all parts of the Southern country, whose previous professional life, during the period of unbroken peace which preceded the Civil War of 1861-1865, gave them but little surgery, and very seldom presented a gun-shot wound.

The story of the hygiene of the vast armies hastily collected to repel invasion, poorly equipped and scantily fed, as well as the frightful experience of the wounded on the battle-field, and the horrible sufferings of the sick and wounded in the hospitals, unfolded a vast field for the exercise of the highest skill and the loftiest patriotism of the medical men of the South.

This body of men, devoted solely to the preservation of the health of the troops in the field, to the succor of the wounded on the battle-field, and the preservation of their precious lives, and the surgical care of their mangled bodies and limbs, and the treatment of their diseases in the field and general hospital, responded to every call of their bleeding country, and formed upon land and upon sea one indivis-

ible corps, which penetrated all arms of the service, and labored for every soldier, however exalted or however low his rank.

When the storm of war suddenly broke upon the Confederacy, and the thunders of cannon were heard around her borders, and her soil trembled with the march of armed battalions, when her ports were blockaded, and medicines, surgical instruments and works were excluded as "CONTRABAND OF WAR," the medical practitioners of the South gave their lives and fortunes to their country without any prospect of military or political fame or preferment; they searched the fields and forests for remedies; they improvised their surgical instruments from the common implements of every-day life; they marched with the armies and watched by day and night in the trenches. The Southern surgeons rescued the wounded on the battlefield, binding up the wounds and preserving the shattered limbs of their countrymen. The Southern surgeons, through four long years, opposed their skill and untiring energies to the ravages of war and pestilence. At all times, and under all circumstances, in rain and in sunshine, in the cold of winter and the burning heat of summer, amid the roar of battle, the hissing of bullets, and the shriek and crash of shells, the brave hearts and cool heads and strong arms of the Southern surgeons were employed but for one purpose—the preservation of the health, the lives and the limbs of their countrymen. The Southern surgeons were the first to succor the wounded and the sick, and their ears record the last messages of love and affection for country and kindred, and their hands closed the eyes of the dying Confederate soldiers.

When the sword decided the cause against the South, and the men who had for four years borne the Confederacy upon their bayonets, surrendered *prisoners of war*, the members of the Medical Corps of the Confederate Army and Navy returned to their desolated homes, and resuming the practice of their profession, spoke words of cheer to their distressed countrymen, administered to the suffering of the sick and wounded Confederate soldier, and extended their noble and disinterested charities to the widows and orphans of the bereaved and distressed country.

Whilst the political soldier rose to power and wealth upon

the shoulders of the sick and disabled soldier of the Confederate Army, by sounding upon all occasions "HIS FAIR RECORD," the modest veterans of the Medical Corps of the Confederate Army and Navy were content to serve their sick and wounded and distressed comrades, asking and receiving no other reward than that "peace which passeth all understanding," which flows from the love of humanity, springing from a generous and undefiled heart. It is but just and right that a Roll of Honor should be formed of the band of medical heroes and veterans.

MAGNITUDE OF THE LABORS OF THE MEDICAL CORPS OF THE  
CONFEDERATE ARMY AND NAVY.

Some conception of the magnitude of the labors performed in field and hospital service by the officers of the Medical Corps of the Confederate Army may be formed by the consideration of the following general results.

KILLED, WOUNDED AND PRISONERS OF THE CONFEDERATE ARMY,  
1861-1865.

Year.	Killed	Wounded.	Prisoners.
1861.....	1,315.....	4,054.....	2,772
1862.....	18,582.....	68,659.....	48,300
1863.....	11,876.....	51,313.....	71,211
1864-1865.....	22,000.....	70,000.....	80,000
Total.....	53,773.....	194,226.....	202,283

During a period of nineteen months, January, 1862 to July 1863, inclusive, over one million cases of wounds and disease were entered upon the Confederate field reports, and over four hundred thousand cases of wounds and disease upon the hospital reports. The number of cases of wounds and disease treated in the Confederate Field and General Hospitals was even greater during the following twenty-two months, ending April, 1865. It is safe to affirm, therefore, that more than three million cases of wounds and disease were cared for by the officers of the medical corps of the Confederate Army during the civil war of 1861-1865.

The figures, of course, do not indicate that the Confederacy had in the field an army approaching three million and a half. On the contrary, the Confederate forces actively engaged during the war 1861-1865 did not exceed 600,000. Each Confederate soldier was, on an average, disabled for a greater

or less period, by wounds and sickness, about six times during the war.

**LOSSES OF THE CONFEDERATE ARMY, 1861-1865.**

Confederate forces actively engaged during the war,		
1861-1865 .....	600,000	
Grand total of deaths from battle, wounds and disease....	200,000	
Losses of the Confederate Army in prisoners during the war, on account of the policy of non-exchange adopted and enforced by the United States.....		
200,000		
Losses of the Confederate Army from discharges for disability from wounds and disease, and from desertion during the war, 1861-1865.....		
100,000		

If this calculation be correct, one-third of all the men actively engaged on the Confederate side was either killed outright upon the field, or died of disease and wounds; another third of the entire number was captured and held for indefinite periods prisoners of war, and of the remaining two hundred thousand, at least one-half was lost to the service by discharges and desertions. At the close of the war, then, the available armed force in the field and fit for duty, numbered scarcely one hundred thousand men. The great Army of Northern Virginia, surrendered by General Robert E. Lee on the 9th of April, 1865, could not muster ten thousand men of all arms, fit for active warfare. Of this body of 600,000 men, 53,773 were killed outright, and 194,026 wounded on the battle-field. One-third of the entire Confederate Army was confined to the Confederate surgeons for the treatment of battle wounds, and in addition to such gigantic services, the greater portion, if not the entire body, of the 600,000 men were under the care of the Medical Department for the treatment of disease. Well may it be said that to the surgeons of the medical corps is due the credit of maintaining this host of troops in the field.

Such records demonstrate beyond dispute the grand triumphs and glory of medicine, proving that if the physician be the preserver of nations in time of peace, he is no less the preserver and defender of armies during war. These records show that the medical profession, however indispensable in the economy of government during peace, becomes the basis of such economy during war. These statistics prove the importance of medicine and its glorious triumphs, and elevate it logically to its true position in the estimation of not only the

physician, but in that, also, of the warrior and statesman. The energy and patriotic bravery of the Confederate soldier are placed in a clear light when we regard the vast armies of the Federals to which they were opposed. The whole number of troops mustered into the service of the Northern Army during the war of 1861-1865, was 2,789,893, or about three times as large as the entire fighting population of the Southern Confederacy.

At the time of the surrender of the Confederate armies and the close of active hostilities, the Federal force numbered 1,000,516, of all arms, officers and men, and equalled in numbers the entire fighting population of the Southern Confederacy.

Opposed to this immense army of one million of men, supplied with the best equipments and arms, and with the most abundant rations of food, the Confederate government could oppose less than one hundred thousand war-worn and battle-scarred veterans, almost all of whom had at some time been wounded, and who had followed the desperate fortunes of the Confederacy for four years, with scant supplies of clothing, with coarse and scant rations, and almost without pay. Yet the spirit of the Confederate soldier remained proud and unbroken to the last charge, as was conclusively shown by the battles of Franklin and Nashville, Tennessee; the operations around Richmond and Petersburg; the last charge of the Army of Northern Virginia; the defense of Fort McAllister, on the Ogechee river in Georgia, where 200 Confederate soldiers, in an open earthwork, resisted the assaults of more than five thousand Federal troops, and never surrendered, but were cut down at their guns; at West Point, Georgia, where there was a similar disparity between the garrison and the assaulting corps, where the first and the second in command were killed, and the Confederates cut down within the fort; the defense of Mobile, in Alabama; and the battle of Bentonville, in North Carolina.

#### NUMBER OF OFFICERS AND ROSTER OF THE MEDICAL CORPS OF THE CONFEDERATE ARMY AND NAVY.

The destruction by fire of the medical and surgical records of the Confederate States deposited in the Surgeon-General's office in Richmond, Virginia, in April, 1865, has rendered this,

the preparation of a complete roster of the medical corps, very difficult, if not impossible.

A general estimate of the aggregate number of medical officers employed in the medical department of the Southern Confederacy, may be determined by the number of commissioned officers in the Confederate Army down to the rank of lieutenant-colonel. Each regiment in the Confederate Army was entitled to one colonel, one surgeon and one or two assistant-surgeons. A medical officer was generally attached to each battalion of infantry, cavalry or artillery. General, lieutenant-general, major-general and brigadier-generals, frequently, if not always, had attached to their staff medical directors, inspectors, and surgeons of corps, divisions and brigades.

We gather the following figures from the elaborate and invaluable "roster of general officers, etc., in Confederate service," prepared from official sources by Colonel Chas. C. Jones, Jr., of Augusta, Ga.

**CONFEDERATE STATES' ARMY.**

Generals..... 6

**PROVISIONAL ARMY.**

Generals..... 2

**CONFEDERATE STATES' ARMY—REGULAR AND PROVISIONAL.**

Lieutenant-generals..... 21

Major-generals..... 99

Brigadier-generals..... 480

Colonels..... 1319

Total..... 1927

If it be estimated that for each of these officers, one surgeon and two assistant surgeons were appointed and served in field and hospital, then the Confederate Medical Corps was composed of about the following :

Surgeons..... 1927

Assistant-Surgeons..... 3854

Total..... 5781

This estimate places the number of surgeons and assistant-surgeons at too high a figure, as may be shown by the following considerations:

a. Many regiments and battalions had not more than two officers. b. The casualties of war were much more numerous, and promotion was much more rapid amongst the line officers than on the medical staff.

A more accurate estimate of the actual number of medical officers actively engaged in the Confederate Army during the war 1861-1865, may be based upon the number of regiments, battalions and legions of infantry, cavalry and artillery furnished by the individual states during the civil war.

Total number of Regiments—Infantry.....	519
“ “ “ Cavalry.....	125
“ “ “ Artillery.....	18
Total.....	657

These regiments were furnished by the individual states as follows :

	Regiments of Infantry,	Cavalry.	Artillery.
Alabama.....	57	8	
Arkansas.....	34	6	
Florida.....	9	8	
Georgia.....	65	11	
Kentucky.....	11	9	
Louisiana.....	34	1	1
Maryland.....	1		
Mississippi.....	51	4	1
Missouri.....	15	6	
North Carolina.....	58	6	4
South Carolina.....	33	7	3
Tennessee.....	67	12	
Texas.....	22	32	
Virginia.....	64	19	4
Confederate.....	8	6	
Total.....	519	125	18

Grand Total of Regiments.....657

Total number of Battalions—Infantry.....	67
“ Cavalry.....	28
“ Artillery.....	50

Total number of Battalions.....145

Total Legions—Infantry.....	18
“ Cavalry.....	8
“ Artillery.....	

Total.....16

Total number of Battalions.....161

Total Regiments.....657

Total Regiments, Battalions and Legions comprising Confederate Army during the War, 1861-1865.....818

If one surgeon and two assistant-surgeons be allowed to

each command actively engaged in the field during the civil war, 1861-1865, the numbers would be as follows :

Surgeons.....	818
Assistant Surgeons.....	1636
Total.....	2454

The medical officers of the Confederate Navy numbered :

Surgeons.....	22
Assistant-Surgeons.....	10
Passed Assistant-Surgeons.....	41
Total Medical Officers, C. S. N.....	73

If to the above be added the surgeons of the general hospitals, recruiting and conscript camps, the entire number of medical officers in the Confederate army during the war 1861-1865 did not amount to 3,000.

The surgeon-general of the United Confederate Veterans has endeavored to construct an accurate roster from his labor in the field and hospital during the war, and from the official roll of the Confederate armies in the field, and thus far he has been able to record the names and rank of over two thousand Confederate surgeons and assistant-surgeons.

The official list of the patrolled officers and men of the Army of Northern Virginia, surrendered by Gen'l Robert E. Lee, April 9th, 1865, furnished 310 surgeons and assistant-surgeons.

The co-operation in this most important work is solicited from every surviving member of the medical corps of the Southern Confederacy.

When perfected, this roster will be published as a Roll of Honor, and deposited in the Archives of the United Confederate Veterans.

156 Washington Ave., November 14th, 1892.

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**Too Much Needle.**—A man recently brought suit against the proprietor of a London restaurant to recover damages for injury received in swallowing a needle with the spinach. He lost his case because he had no witnesses to prove that the needle was in the food.

GYNÆCOLOGICAL EXCESSES.\* BY JOHN W. TRADER, M. D.  
Sedalia, Mo.

In calling your attention to gynecological excesses, I do not wish to be understood as railing against my profession, or setting the example of a chronic grumbler, in condemning some of the modes of procedure of medical men, especially the gynecologist, any more than to give a protest against the very common, and, I might say, universal practice of the people, going into excess fully as much as the physician. It is a common belief that forms and styles prevail and then vanish, as the flowers and leaves of spring are made to give place to new orders, and become the carpets upon which we tread. There is no gainsaying the fact that forms and certain styles prevail in scientific as well as matters of ordinary life.

It is hard to define the office of surgeon, or give a distinctive boundary to physician and surgeon. The old rule of delegating all external parts to the surgeon, and all internal to the physician, will certainly not hold good in our day, and especially in the case of gynecology, for with the gynecologist the outer surfaces and inner cavities are alike his property. And as Mr. Lawrence says: "Nature has connected the outside and inside so closely, that we can hardly say where one ends and the other begins. She has decreed that both shall obey the same pathological laws; and has subjected them to such powerful natural influences, that we cannot stir a step in investigating the diseases of either, without reference to the other." When we look at the nature of diseased action, and the causes producing pathological conditions, we see at once the absurdity of such a definition. The fact is patent to all of experience, that both medicine and surgery is closely allied, and will not admit of separation. Especially is this the case in all gynecological work. Few surgeons will prove successful who ignore this fact, hence we have occasion to note and very justly condemn gynecological excesses. The ambition to excel—the all but criminal desire to do some great thing in this special field—has not only caused a vast amount of human suffering, but has unnecessarily exposed the private chamber of womanhood, and, in many instances, brought an unsavory odium upon our profession.

\* Read before the Pettis County Medical Society, Monday evening, November 28, 1892, at Sedalia, Mo., and ordered published in THE ST. LOUIS MEDICAL AND SURGICAL JOURNAL by the Society.

This is not only a great evil of its own, but has brought other little less disastrous evils in its train. How common it has become for the minds of women to be directed to their organs of gestation, is well known to the Doctor. Girls, as well as the staid matron, will discourse of leucorrhœa and uterine displacements with a familiarity that would send a Mahometan to the shrine of Mecca. A mother will even contend with her physician that her daughter, probably just beginning to menstruate, is suffering from uterine disease, and will insist that an operation is demanded. They look upon such procedures as a desirable "*quod in therapeia.*" and quite the proper thing, and even speak with pride, and like to herald the gossip, that Jennie has had her womb straightened by Dr. Blank.

There are several criticisms justly made against these excesses. First, in many instances, there is no necessity for them, and in the second place it is morally degrading to educate young girls into the belief that every trivial manifestation of disordered function, originates in the matrix.

The argument is adduced by some that the changed condition of life among civilized people renders necessary many surgical and gynæcological procedures, not called for in the simpler modes of life, and among primitive peoples. Hence we have all neuroses, and diseases originated in perverted function, relegated to uterine trouble, and young and old alike subjected to the ordeal of manual treatment, and the coveted and popularized operation. And in the third place, we have, as a result of this education, a sequel of physical degradation, and the more to be dreaded calamity of a moral debauchery. Young men marry with a view of getting a wife to take the place of a mistress, and the girls make a common practice of uterine douches and washings, until their health is broken down, probably their lives despaired, when an operation—virtually castration—stares them in the face as the only relief from a life of pain and suffering. I do not wish to be understood as intending that my profession has been the means of bringing about this abnormal state, any more than the newspaper world has brought about crime by publishing the details of crime.

The perverted tastes and abnormally excited nervous systems of the people are to be held accountable for this apparent weakness of our natures, and the luxurious surroundings of

our physical life has eclipsed the powers and influence of our moral and spiritual beings, so that we have come almost to that state of the Romans in their decline, so graphically portrayed by the historian, where he says :

“Ill fares the land, to gathering ills a prey,  
Where wealth accumulates and men decay.”

This fact has become so patent that we turn, instinctively, to the yeomanry of the country to perpetuate our institutions.

The dangers are threatening. This is no “iridescent dream,” that unless our moral and physical beings are more carefully cultivated and redeemed from this impending darkness, we shall have arrived at the goal of the Amorites, “whose iniquity was full,” and whose people and autonomy perished from the face of the earth.

Rome, Carthage, and the splendid pyramid of Grecian civilization and culture went down before the inroads of licentious living, as the proud oak shattered by the lightning stroke.

Shall we say then that the higher culture develops licentiousness? Yes—no. We can answer this question in both ways. If our civilization does not develop our two-fold natures in their proper ratio we will certainly be destroyed. We must keep up an even balance. The material and purely physical must not be overstrained, and the normal part of our beings permitted to languish and decay. Physical development alone is but the firing up of all the animal passions, abusing one of the most sacred principles of man and degrading him below the brute. For brutes are restrained by nature, but man is lord of all he surveys, and was created a prince and ruler, and not a subject. When we speak of man we include woman, for while in the aggregate we are one, yet in the abstract we become individual entities.

It is an old maxim that like produces like, and irritation growth—hence the old latin aphorism in physic—“*ubi irritatio ibi fluxus*.” We do not digest a dinner without inflammation of the stomach. We can not think without, in a sense, producing inflammation of the brain. Now, if the blacksmith’s arm enlarges from use, so we are taught that the brain develops in proportion to use.

Knowing this to be a law of our natures, we take advantage of its teachings, and improve by use and irritation those muscles that are weak and develop our mental and moral nat-

ures by the same law of accretion. But if we give more than the necessary attention to any one part or organ, we will naturally overdevelop that part, and, instead of bringing it up to, and maintaining the normal healthful working standard, we cripple its usefulness in maintaining the economy, and give its powers a downward or degrading tendency.

If young men and young women think more about their fundament than they do about their brain, the fundament will obey the universal law of growth, and at once become abnormal in function.

The vast field of nervous disturbance owes its existence to overdevelopment of special organic function. For instance: If woman only knew of the existence of a uterus and uterine appendages by the natural process manifest in gestation, there would be very little need of a gynæcological manual. It is not right that a people's mental and moral natures should be exalted at the expense of the physical, but this growth should be equal and commensurate with the highest development of the creature.

As physicians, we are expected to improve the physical nature, and relieve the overburdened organs that administer to this nature, and not stop to moralize as to how the disturbance was brought about, or issue diatribes as to the fearful thralldom that awaits the sinner. We had to assume this place when the priestly office was divorced from the profession. So I cannot and do not wish to lay a special condemnation upon my professional brethren for doing what, in the nature of their avocation, they cannot do if they conscientiously perform their duty.

If a patient has, of her own accord, washed and syringed the vaginal mucous membrane until a fearful and distressing catarrh supervenes, we should treat this malady until function is restored, but not necessarily *durante beneplacito*. So, likewise, many other ailments are brought about as the result of our peculiar civilization. The excesses, then, does not lie with the profession, but is none the less what is called acquired disease or habit of person.

There are a few excessive diseases or habits of person that are justly laid at the door of the profession. Such as dilations of the neck for the relief of many ills and then the stitching it up for the relief of others.

Laporatomies, in gynecological work, has no doubt been carried to excess, but we find this evil being remedied, to some extent, on account of adverse criticism.

In conclusion, to sum up, gynæcological excesses are the result of the mode of life and the peculiar surroundings of the subject. The only way to prevent these is to change the surroundings and mode of life. The question for us to settle among ourselves is, is it our duty to take hold and educate our patients as to how to avoid these excesses. Probably this question cannot be satisfactorily settled so as to control the action of individuals. No doubt much can be said on both sides. I do not hesitate to answer yes and no, for while the Doctor is expected to be a paragon of virtue, it is too much to expect of him an entirely unselfish life. If the sentiment that so engrafts itself into the individual as well as the community has become public sentiment, the only way to change it is to change public sentiment. Notwithstanding all this, we must not lose sight of the fact that a constant vigilance is expected of us, in order to avoid, as much as possible, these excesses.

Now, in this connection, we might notice some very aggravating complaints that the physician, as well as the gynecologist, is called upon to relieve; complaints that not only tax all our resources, but often baffle all our skill. In this condition the professional gynecologist has a large field in which to operate, and, in many instances, gains a reputation for skill far above his just deserts, and to the manifest detriment of his less fortunate brother practitioner, who relies solely upon medication. I refer to those diseases arising from peripheral excitation and are dependent upon a neurotic condition and not upon organic lesion. These conditions may be hereditary, and depend upon a psychical as well as a physical derangement.

These disorders may afflict all ages and both sexes, but are manifestly more common among women and among the young society girl than the elderly matron.

The practice is not uncommon to refer these purely nervous disorders to some sexual derangement, requiring an operation, and the patient is persuaded that all the trouble and suffering is referable to her sexual organs.

Instead of an antipathy to having the person exposed, as in the naturally modest, society has so perverted the tastes

and ways of modern life that *the* operation is insisted upon even by the virgin, and to be able to say that she has been operated upon is a boast, rather than a shame.

I would suggest that in a majority of these cases we could render a valuable service if we could change the manner of life and insist upon the moral, as well as the physical, hygiene if we would maintain the integrity of womanhood.

There will always be a large class of patients that will supply the operating table. These will come from that part of the community that are deprived of any very acute moral sense, or possibly insensible to any higher object in life aside from the physical pleasures and gratifications of the flesh; and to these, any argument looking to the moral aspect of the question would be like "casting pearls before swine." But we should make a distinction, and if it is not possible to elevate some to the plane of the angels, we should not pull the angels down to the level of the morally depraved.

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OPTOMETRY. Lecture to the Medical Class of the University Medical College, of Kansas City, Nov. 1892. By FLAVEL B. TIFFANY, Professor of Ophthalmology.

*Gentlemen*—It is said that any one can administer treatment in disease if he knows the disease, and "there's the rub," for to know the disease—in other words, to correctly diagnose—one needs not only to be familiar with the symptoms in their various forms, but he must carefully examine, and to examine carefully he must not only have the necessary means of examination and various tests, but he must know how to employ them.

I remember once being called in consultation with a busy and prominent physician to see an eye case. The doctor said I need not bring my ophthalmoscope, as he had a good new one, and would like me teach him how to use it. To my surprise, he presented a beautiful laryngoscope!

In no branch of medicine, it would seem, is it so necessary that a settled and definite plan be carried out, and the various means or tests employed to ferret out the many occult diseases and complications, as in ophthalmology. In no branch

of medicine have. there been so many instruments and apparatus invented for the disclosure of the many anomalies and affections as are contained within and surrounding this little organ of vision.

That the affections of the eye are responsible for the various forms of asthenopia—particularly neuralgic headache, vertigo, and many forms of chorea, and various other nervous diseases—is being recognized more and more by the general practitioner.

The doctor is unable to cure many of these cases and sends them to the oculist, and the oculist is frequently put to his wits' end and completely stumped in trying to ferret out the real pathological or functional disorder or defects. Many tests and repeated examinations have to be made ere the real conditions are brought to light. It is my purpose this morning, gentlemen, to bring before you some of the methods of optometry, or the means of examining the eye, and to show you how we may arrive at an accurate diagnosis—the principal desideratum in the practice of medicine in general, or any of its branches; for if a person is not a good diagnostician he cannot be a successful practitioner.

Before examining the eye as to its anomalies of refraction and accommodation and its muscles, let us first glance at this organ from an anatomical standpoint.

The eye is located in the front part of the head, and in the orbit, where it rests upon a cushion of fat; it is enclosed in a capsule and supplied by numerous nerves and blood-vessels and lymphatics. It consists of a sphere with a segment of a smaller sphere engraved upon the front part, so that it is not quite spherical. It is longer by about one mm. from before backwards than from side to side or from above downwards.

The human adult eye is about one inch in its antero-posterior diameter. Statistics show that the average measurements of the eye are as follows:

#### MEASUREMENTS OF THE EYE.

Antero-posterior diameter externally.....	24.3 mm.
Transverse .....	23.6 "
Vertical .....	23.4 "
Sclera, thickness behind.....	1.0 "
Cornea, thickness at apex.....	0.9 "
" " " margin.....	1.1 "
" radius of front surface.....	7.7 "

Cornea, diameter of its base.....	11.6 mm.
"    height of apex above base.....	2.8 "
Pupil, average diameter.....	4.0 "
Lens, thickness in repose (axis).....	3.8 "
"    equatorial diameter.....	8.7 to 10.5 "
"    radius of anterior surface.....	10.6 "
"    "    "    posterior ".....	6.0 "
Distance from outer surface of cornea to lens.....	3.0 "
Depth of anterior chamber.....	2.6 "
Vitreous axis.....	15.1 "
Retina, thickness at optic disc.....	0.4 "
"    "    "    fovea centralis.....	0.1 "
Diameter of fovea centralis.....	0.2 to 0.4 "
"    "    optic disc.....	1.4 "
Distance from center of optic disc to center of fovea centralis.....	4.0 "
Internal axis of the eyeball from apex of cornea to surface of fovea centralis.....	23.87 "

Fig. 1 illustrates from profile view the different structures of the eye and their relations one to the other.

The globe consists mainly of three tunics, three refractive media and three chambers. The tunics or coverings are the external, middle and internal. The external is formed by the sclera and cornea. The sclera is a dense, fibrous tissue, and forms five-sixths of the tunic. The cornea is a perfectly transparent tissue forming the remaining one-sixth of the tunic. The transparent cornea does not extend to the limbus, or attachment of the iris, and a knife can be passed through the sclera into the anterior chamber in front of the iris.

The cornea consists of five layers, which from before backwards are as follows :

1. Epithelial membrane.
2. Anterior lamina.
3. Cornea proper.
4. Posterior lamina.
5. Endothelial membrane.

It contains no bloodvessels, but numerous nerves and lymphatics.

The second tunic consists of the choroid, ciliary processes, ciliary ligament, ciliary muscle and the iris. The choroid is composed of two layers, external and internal. The ciliary processes are formed from a reduplication of the choroid at its anterior part.

The choroid is very vascular and extends up to the limbus. It is formed mainly by veins and arteries with a fibrous stroma, filled with pigmentary cells. The ciliary processes are similar in structure to the choroid.

The iris is a curtain suspended in the front part of the eye, and is attached to the limbus. It is pierced slightly at the nasal side of the center by a circular opening called the pupil. The iris consists of two sets of fibres, circular and radiating. The circular surround the pupil, the radiating fibres radiate from the external circumference. The iris contains numerous blood vessels, nerves and lymphatics, besides a stroma loaded with pigment, the latter giving color to the eye.

The ciliary muscle consists of two sets of muscular fibres, circular and radiating. The ciliary ligament is a circular fibrous band extending around the limbus, and affords attachment to several structures at this region.

The internal coat of the eye is formed by the retina. It extends to the ciliary processes, and ends in an irregular serrated border, the *ora serrata*. It consists of ten layers, from interior outwards:

1. *Membrana limitans interna*.
2. Fibrous layer.
3. Nuclear “
4. Molecular “
5. Granular “
6. Outer molecular layer.
7. Outer granular “
8. *Membrana limitans externa*.
9. Jacob's membrane (rods and cones).
10. Pigmentary layer.

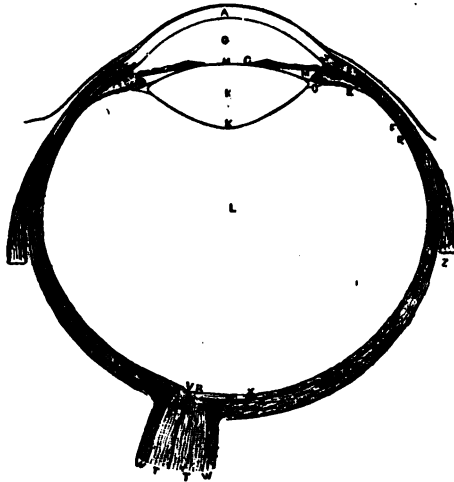
At the posterior pole of the axis of vision is the yellow spot called the *macula lutea*. Within this spot is a dot called the *fovea centralis* (central pit).

The structures of the retina differ at this point; all the membranes are wanting except Jacob's, and only the cones of this are present.

The refracting media consist of the cornea, aqueous humor, crystalline lens and capsule, and vitreous body. The chambers are the anterior, the posterior, and the vitreous. The anterior chamber is the space between the cornea and iris; the posterior, between the iris and anterior surface of the cap-

sule of the lens. The vitreous is the large chamber back of the crystalline lens and in front of the retina.

The anterior and posterior chambers contain an aqueous fluid; these two chambers communicate through the pupil of the iris, especially when the pupil is dilated. When the pupil is contracted, the circular fibres of the iris are in contact with the anterior capsule of the lens. The index of refraction of the cornea and of the aqueous humor is about the same.



(After Arlt.)

- |                       |                                 |
|-----------------------|---------------------------------|
| A. Cornea.            | M. Posterior Chamber            |
| B. Sclera.            | O. Petit's Canal                |
| C. Iris.              | R. R. Retina                    |
| D. Ciliary Muscle.    | S. S. Lamina Cribrosa.          |
| E. Ciliary Processes. | T. T. Optic Nerve.              |
| F. Ora Serrata.       | V. V. Canal of Retinal Vessels. |
| G. Anterior Chamber.  | W. Sheath of Optic Nerve        |
| H. Pupil.             | X. Region of Macula Lutea.      |
| I. Crystalline Lens.  | Y. Schlemm's Canal              |
| K. Posterior Capsule. | Z. Rectus Muscle.               |
| V. Vitreous.          |                                 |

FIG. 1.

The lens is composed of concentric layers. It is a bi-convex body (posterior convexity greater than anterior). It is located back of the iris, in front of the vitreous, and is lodged in a depression of the vitreous (hyaloid fossa), and is held in position by a ligament, the suspensory ligament. The vitreous is a gelatinous body filling the vitreous chamber. It is enclosed by a delicate membrane, the hyaloid membrane. It is to the ciliary region I wish to call especial attention as it is this region that is in close proximity and has most to do with the power of accommodation.

From the foregoing figure we see that the anatomical structure of the eye in the ciliary region is not only elaborate and complicated, but is intimately connected with other parts of the eye, also with the nerve centers by the lenticular ganglion, the optic and ciliary nerves, as well as to other organs by the sympathetic. We find that this part of the eye is brought constantly into action in the accommodation and refraction.

*How to examine the eye.*—In optometry there are many methods used in seeking out the anomalies and affections of the organ of vision and its muscles.

In making the examination of the eye we should go about it in a systematic way and make it a matter of record for future use.

Successful physicians, to whom we look for accurate knowledge, from whom we gain valuable statistics, and who make a financial success, keep a full and accurate account of all cases brought under their notice. The doctor should record the name, age, nationality, birthplace, occupation, residence, color of eyes, temperament, of each and every one of his patients, and then the history as gotten from the patient himself, if possible, not from the attendant. In many cases, as with children, the history has to be obtained from the parent or attendant. You may ask, why take the color of the eyes and the temperament? Certain diseases seem to be peculiar to individuals of a certain temperament and color of the eyes.

Examine the eye first without touching it; look at it; observe the general condition; see if there is any trouble with the lids—if they are or are not limited in their movements; if there is any paralysis or paresis; see if the margin is affected; if there is any affection of the edge of the lids; if the ciliæ seem to be in a healthy condition, or if they are falling out. Examine the punctum; if it be free and in contact with the eyeball, or occluded and drawn away; if there be any overflowing of tears; observe the lachrymal sac. If there is suspicion of suppurative inflammation, then press by the bulb of the finger and see if pus and mucus can be made to exude from the punctum.

Examine the palpebral aperture, if it be contracted or not; if the margin of the lid turn in or out (entropion-ectropion). See whether there is any distortion or double or triple rows of lashes; if there is any hordeolum or chalazion.

Turn the lids and examine the conjunctival lining. Look for foreign bodies—for trachoma especially. Examine the retrotarsal fold and cul-de-sac. See if the cul-de-sac is normal or perhaps obliterated with cicatricial bands extending from the lid to the ocular conjunctiva. Examine the ocular conjunctiva, if there be any hyperæmia, pterygium, phlyctenulæ, foreign bodies, etc. Look to the cornea—as to its radius of curvature, its size, its transparency, whether it is free from blood-vessels, opacities, etc.

Look to the condition of the anterior chamber, whether it be normal, deep or shallow; to the iris, its pattern; to the irides, if they differ in color or vascularity; if there is any adhesion of the iris to the lens capsule; to the cornea, if it be flat, convex or concave; to the pupil, if it respond readily to the stimulus of light, or if it be sluggish or even stationary; if it be contracted and small, or if dilated and large and immovable. Notice the aqueous humor, if it be clear or turbid; if there be flocculæ or pus. Examine the lens and its capsule, if there be any opacity. All this can and should be done with the naked eye, and with little or no handling of the organ. To make a more searching examination, the patient should be examined in a darkened room by artificial light.

By artificial light we employ three methods of illumination, viz: Oblique, direct and indirect.

By the oblique or focalization, by means of a convex lens of about two-inch focal power, focus a pencil of light upon the cornea and front part of the eye. Place the patient in a chair with gas-light on a level with the pupil, and about fourteen inches to one side, and a little in front of the patient. By focusing the light, thus causing it to flit over the front of the eye, any slight opacity of the cornea that may have escaped the naked eye is quickly discovered: also any abnormal condition of the anterior chamber of the iris or lens capsule. (Fig. 2.)

In employing the second or direct method, the lamp should be placed back and at one side of the patient on a level with the pupil, about fourteen inches away. Then by means of the ophthalmoscope, reflect the light through the pupil into the eye. In this way, if the media are clear, the whole fundus of the eye can be illuminated, and one looks upon the retina and optic nerve. This is the only place in the whole body where the circulation of the blood is exposed to



Fig. 2.



Fig. 3







Fig. 4

view. And it is a most beautiful picture to behold. To Helmholtz are we indebted for the discovery of the ophthalmoscope. It was no earlier than 1852 that he contributed this great boon to ophthalmology. Previous to 1852, we had scarcely any definite knowledge of most of the diseases of the inner structures of the eye.

In order to see the fundus clearly, as in looking through a key-hole into an illuminated room, you have to come close to the pupil, even almost to absolute contact with the face of the examiner—then looking through, one gets a distinct view of the back part of the eye, and all there is to be seen there. (Fig. 3.)

One, viewing the eye in this way for the first time starts back in amazement and delight at what he sees. The picture is most beautiful, the bright red retina and its arteries and veins flash into view, pierced by the optic nerve; at the nasal side of the visual line, and just at the posterior pole of the visual is to be seen the yellow spot which is at the temporal side of the optic disc. The optic disc is usually round if there is no astigmatism, and is much lighter in color than the retina. It is pierced by the arteria centralis retinæ, and its veins which divide and give off branches.

The yellow spot is about one-fifth as large as the optic disc, and is darker in color than the surrounding retina. If there is astigmatism, the disc may be oval with its longer axis in various meridians, as represented by the accompanying figures. Many affections of the system, remote from the eye, can be detected by certain signs and conditions of the fundus of the eye. Hence every physician should possess an ophthalmoscope and be able to employ it in diagnosing diseases. (Fig. 4.)

The third or indirect method is the one employed in the examination of the deep structures of the eye by means of the ophthalmoscope and an intervening convex glass, such as is used in the first or oblique method. Here the light should be placed a little more at one side, and in front, than in the direct method; then by means of the ophthalmoscope the light is reflected into the eye through an intervening lens of two inch focal power, held in front at its focal distance from the eye. In this examination the physician should be about fourteen inches distant in front of patient. The bi-convex lens

is held by the thumb and index finger directly in front, and plumb before the pupil, steadied by the little finger resting on the temple of the patient. By this method one sees an inverted image in the air in front of the lens ; see fig. 4.

The ophthalmoscope is a mirror with a hole in its centre. The mirror may be plane or concave, usually it is slightly concave.



Fig. 6.

Liebreich's is the best simple ophthalmoscope. It consists of a mirror mounted in hard rubber with a handle, a clip back of the circular hold for the reception of small lenses of which there are both concave and convex. These come with the instrument. See figure 5. Price, \$3.00 to \$5.00.

The Loring or its modification is the best ophthalmoscope. (Figure 6.) It carries a concave tilting mirror, swung on two pivots, a large milled-head disc containing seven small convex lenses ranging from one to seven d., and eight concave lenses from one to eight d., and besides a quadrant containing

four small lenses, a concave and convex of sixteen d., and concave and convex of one-half d.; so by the combinations one gets twenty-three convex and twenty-four concave lenses; besides a half.



Queen &amp; Co.

FIG. 5.

The chief advantage of the Loring instrument is that the tilting mirror permits closer proximity to the eye observed and in direct line, while in the others, when the light is reflected into the eye, it has to be tilted and if near to the eye one has to look obliquely through; besides, by means of the small lenses the kind and amount of ametropia can be quickly ascertained. For instance, the strongest convex glass, rotated in front of the opening, (direct method) by which one is still able to see the small blood vessels near the disc (the power of accommodation being relaxed in both eyes—the observing and observed) indicates the amount of hypermetropia; and the weakest concave glass the amount of myopia.

The blood vessels of the ametropic eye should be easily seen without the aid of a lens, especially at a near point to the eye.

The retinal blood vessels of a hypermetrope may be seen at some distance from the eye. They travel in the same di-

rection as the head of the observer—that is, if the observer moves his head to the right, the blood vessels of the retina viewed travel to the right, and vice versa. The reverse is true if the eye observed be myopic. Here again the blood vessels can be seen at a distance, say three feet from the eye, and if the head of the observer is moved to the right the blood vessels travel to the left, and vice versa.

The direct method is vastly superior to the indirect. A large field is gained and there is much less liability to overlook diseases of the fundus, as well as different forms of ametropia. In children and highly myopic patients the indirect is preferable. (If the observer's eye be not emmetropic, it should be rendered so by a glass).

*Retinoscopy, or Shadow Test.*—This is a method of examining the eye for any form of ametropia. By this means one is not only able to tell quickly what form of ametropia exists, but also, approximately, the degree.

In this test the "accommodation" of the patient should be set aside, the pupil dilated, and he be placed in a dark room. Then place a lamp or gaslight just above the patient's head. Then, at a distance of three feet, with the ordinary ophthalmoscope with flat mirror, reflect light upon the eye. (Fig. 7.) There will be seen a shadow over the pupil, as a reflex from the retina. If the mirror be slightly tilted, so as to change the position of the light upon the eye, the shadow in the pupil will change its place; for instance, if the light is thrown down (if you have to do with a hyperopic eye) the shadow will travel across the pupil in the same direction. If it is thrown from right to left, the shadow will go to the left. Now, to ascertain the amount, place a convex glass in front of the eye examined, and the strongest glass required to dispel the shadow will indicate the amount of hyperopia. The reverse is true in myopia; here the shadow travels in an opposite direction to the light thrown upon the eye, and the weakest concave glass necessary to dispel the shadow indicates the amount of myopia. Lenses set in a large disc that can be rotated in front of the eye are much more convenient than taking them from the trial case. (Fig. 8.)

This is a most excellent means of optometry for young children and persons whose statements are not to be relied upon, but should not be used to the exclusion of the direct



Fig. 7



Fig. 10.



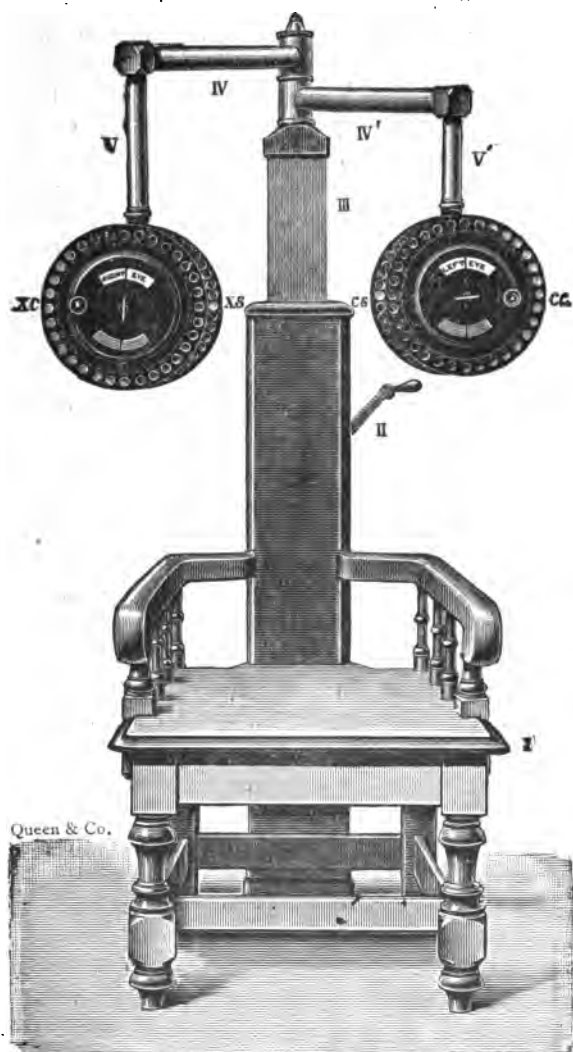


FIG. 8.

method, as thereby many diseases or affections of the fundus will be overlooked.

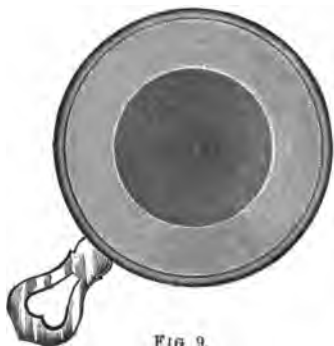


FIG. 9.

*Chromatic Test.*—This test consists in the use of a glass with all the chromatic colors suppressed except the red and blue (Fig. 9). The glass is held or supported in a frame before one eye (the other being covered). The patient is placed fifteen or twenty feet from a light. If the patient be myopic, the margin will appear blue and the centre red; if the eye be hyperme-

tropic, the margin will be red and the center blue. The greater the degree of ametropia, the more intense will be the colors.

In astigmatism, if a screen with a circular opening be placed before the light, the colors will elongate, and the greater axis will indicate the meridian of astigmatism. In case of the myope, the concave glass required to neutralize the colors will indicate the degree of anomaly; and in hypermetropia, the convex glass required will indicate the amount of hypermetropia.

*Enlargement of ophthalmoscopic images and how to determine the amount.*—In looking into the eye through the dioptric media, everything seen at the fundus is enlarged at least twelve or fifteen times its real size, as seen in the open air; but as the fundus is viewed through the refractive media of the eye, and all images or objects are seen magnified, we come to look upon them as of their apparent size and relation one to the other, rather than from their real size and condition. For instance, instead of regarding the optic disc as only 1.4 mm. we look upon it as being as large as the ball of the finger or somewhere near a quarter of an inch, and so with the distance of the fovea centralis from the optic disc, instead of about 4 mm. we think of it as about an inch away; the same with any foreign body; it appears much larger than it really is, and at a greater distance from a given point than its real distance. So it is of practical importance that we be able to determine at once the real size, or what amounts to the same thing, prac-

tically, the magnification. Dr. Landolt has, from accurate calculation and experiment, demonstrated that the image at the fundus of the eye by the direct method projected 30 centimeters, will be magnified just twenty times its real size.

One with a little practice with the ophthalmoscope can readily project what he sees of the fundus of the patient's eye upon a screen behind and at one side of the patient. Now, to calculate the size of the disc, macula lutea, or what-not, seen at the fundus, we have only to suspend a vertical screen of white paper, celluloid, or even the white wall will do, checked off by vertical and horizontal lines ten mm. apart. By keeping both eyes open, one eye views the fundus under observation, the other the screen. Now, it is a very easy matter to project the image of the fundus upon the screen and observe with the other eye how much space the object under observation covers of the screen checked off in squares. (See Fig. 10.)

In viewing objects with the microscope, our first inquiry is concerning the magnifying power of the instrument, that we may know how much the object is enlarged; but how many ophthalmologists ever think of this in viewing the fundus of the eye through the dioptric media? This, I repeat, is of practical importance, and should be taken into consideration at all times.

*Optometry by the Perimeter.*—This is the method used in determining the field of vision and its limitations. The field of vision is the space bounded by a line including all objects perceptible to the eye without change of fixation. For instance, when we look at a particular object, although the eye is fixed upon this object, other objects at either side, above or below, within a certain distance are also perceived; the further they are away the more are they indistinct, for the further are their images from the macula lutea, which is the most sensitive part of the retina, and the sensibility of the retina gradually diminishes from the macula lutea. The nose, eyebrows and cheek limit the field of vision.

At the temporal side the limit is  $20^{\circ}$ , at the nasal it is  $50^{\circ}$ , above it is  $50^{\circ}$ , below  $65^{\circ}$ .

*The Perimeter is an Arc.*—Fig. 12, usually half a sphere mounted on a base and suspended on a pivot, so as to be rotated through all meridians. It is spaced into degrees from 0 to 90 in each direction.

At the foot of the instrument is attached an upright rest for the chin of the patient. The standard is about twelve inches from the centre of the arc. The chin of the patient resting on the standard, the eye should be on a line with the centre of the arc at which point is a bright white spot. The

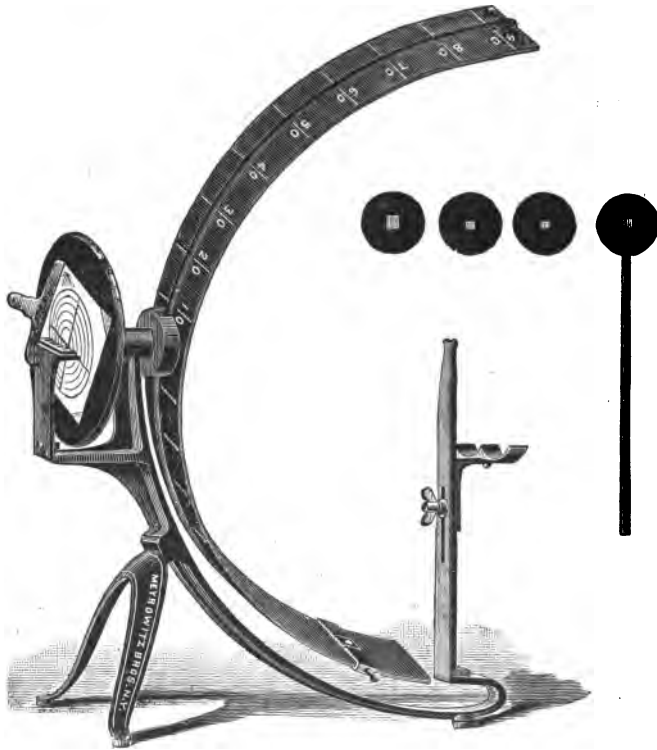


FIG. 12

eye under examination is to be directed to the white spot, while the other eye is covered. Now, as the movable white spot is passed from the centre of the arc, or from zero toward the circumference, the eye under examination being constantly fixed upon the spot of the arc, (my custom is to turn the arc into the vertical position, and then pass the movable spot along the arc from zero toward the circumference, where it passes out of view) read off the degrees and check on the chart, then rotate the arc into another meridian, say  $15^{\circ}$  to the left, and so proceed until you have entirely gone around to the

point started from. The perimeter is not only useful for ascertaining the field of vision, but also for mapping any defects, such as blind spots (scotomata). The patient may tell you as you move the white spot along the arc that at certain points it disappears, but comes again into view as you continue to move it further on. For instance, from  $10^{\circ}$  to  $20^{\circ}$  it is invisible, coming into view again. It may again disappear at  $40^{\circ}$  and again return to view at  $50^{\circ}$ . Between 10 and 20 and 40 and 50



FIG. 18.

in the case supposed there are blind spots. Notice, that both the location and size of these spots may be ascertained. This is of great practical value in certain diseases of the retina and choroid. If examinations are made from time to time and the results recorded, it is easy to determine if the disease is stationary or progressive. It is also a means of determining degree of strabismus.

*Measurement of the Eye by the Keratoscope.*—The Keratoscope is an instrument for measuring or examining the cornea, invented by Placido, and is an easy method of determining if there be astigmatism of the cornea or no.

The instrument is quite simple, consisting of a card or plaque with several concentric rings, with a circular opening in the centre.

If the card with rings be held before the patient's eye, with his back to the light, the rings can be seen through the opening of the card reflected from the cornea; a lens of about four inches focal power may be placed behind the card. If the cornea is symmetrical throughout its various meridians, the circles will appear circular as on the card. If there is astigmatism they will be oval and the direction of their longest diameter will indicate the meridian of astigmatism. The cylindrical glass that renders the oval circular will indicate the amount of astigmatism. This little instrument is a ready means of detecting and determining the amount of corneal astigmatism.



FIG 14.

*Fig. 14 and 15. Optometry by the Prismometer.*—This instrument consists of a revolving double prism set in a large disc, divided by meridians of ten degrees apart, with indicator. There is a circular opening at the centre of the instrument in which the prism is set which has the effect of doubling objects looked at, and a white disc of four inches in diameter as shown in Fig. 15, seen at a distance of sixteen feet is double, and if the person be emmetropic the edges are tangent as seen in *a*.

If the prism be rotated the discs will remain tangent. If there be astigmatism the false or second image will impinge upon, or separate from the other in different meridians, according to the kind of astigmatism—(myopic or hyperopic). If the person be simply myopic the false will overlap the other, *b*; if

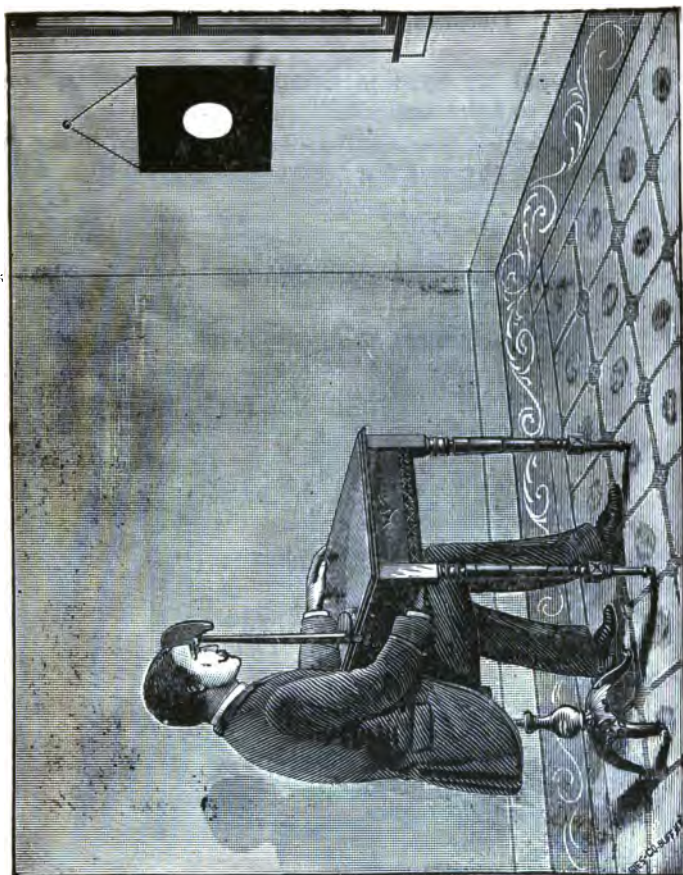
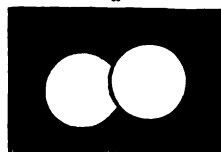


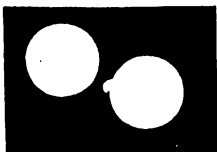
Fig. 15.



a



b



c

hyperopic it will separate from the other, c. The amount of ametropia can be approximately ascertained by the strength of the glass placed in the clip required to make the two images tangent.

*Optometry by Juval-Schietz.*—This instrument is called after the inventors, Juval and Schietz, but to my thinking it should be called an Astigmometer instead of an Ophthalmometer, as it is intended to determine astigmatism rather than to measure the eye for the various forms of ametropia.

This instrument is undoubtedly the most scientific and reliable of all means (excepting by the trial glasses and the

ophthalmoscope) we have in determining corneal astigmatism—the axis and the amount.

The instrument is time-saving and reliable, and in the majority of cases it obviates the necessity of a mydriatic, which

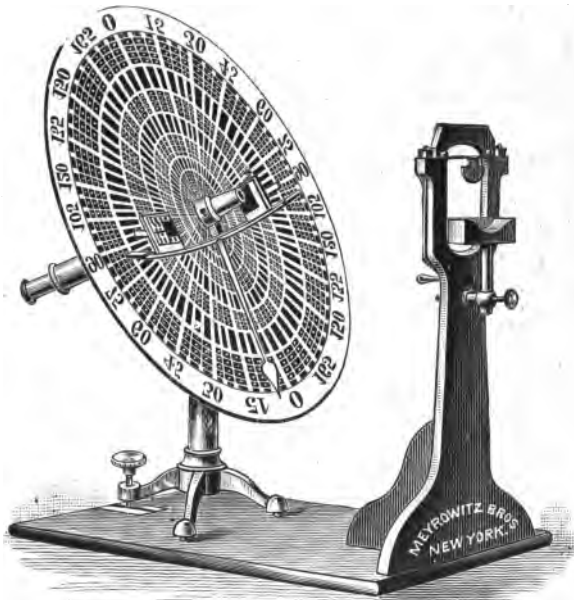


Fig. 16.

to the busy person, and to those dependent upon their eyes for gaining a livelihood, is a great advantage. It is certainly a boon to the ophthalmologist. The instrument consists of a large disc, eighteen inches in diameter, marked off in degrees; in front of this swings a curved bar, to which are attached two white figures, one parallelogram with a dark, horizontal line through its center (Fig. 16) and a similar figure with steps on one side of the line. This second figure is movable on the bar, while the other is fixed. The bar is attached to a telescope which can be rotated, swinging the figures attached into any meridian desired. The telescope contains a Nicol's prism, which has the effect of doubling the images of the objects upon the bar as they are seen through the telescope, reflected from the cornea of the patient. The telescope disc

and bar are mounted on a tripod, which can be shifted to different distances and positions, or, in other words, to bring it into focus for the images reflected from the cornea of the eye observed. In conducting the examination, place the patient's head in the frame with chin resting on support, and the forehead firmly against the upper part of the frame, as the least movement of the patient's head will change the focus and disturb the images. The light should be ample; sunlight or artificial—of the latter the incandescent is the best, as it can be used at any time, day or night, and in any kind of weather. It is preferable to gas on account of the absence of heat and its greater illuminating power. The lamp should be dropped to the level of the bar instead of being above as indicated in the cut.

After bringing the instrument into focus so that the disc and the objects are in view, move the movable plaque so that its image will be seen on the cornea, in close proximity to the other, and so that its black line is continuous with that of the stationary plaque. (If these lines cannot be made to join, and one plaque is higher than the other, it indicates a conicity of the cornea).

The instrument being properly focused, say for the horizontal meridian, rotate the bar to the vertical. If the images maintain the same relation one to the other all around, there is no astigmatism, but, if the plaque with steps overlaps the other, there is astigmatism; if it overlaps one step, one dioptré is indicated; if only a quarter of a step then only one-fourth of a dioptré is indicated. If two or three steps overlap then two or three dioptries are indicated. This instrument measures the corneal astigmatism, not the lenticular. It is reliable, convenient and speedy in its revelations. For children and persons whose statements are not to be relied upon, it is of special service.

*Examination with test-type from the trial case.* (Fig. 17.)—Of all the different methods of examining the eye for the several anomalies of refraction and accommodation, that with the trial glasses from the case is the most usual and altogether the most reliable and satisfactory method, the one we really fall back upon in concluding the examination before prescribing the spectacles to be used.



FIG. 17.

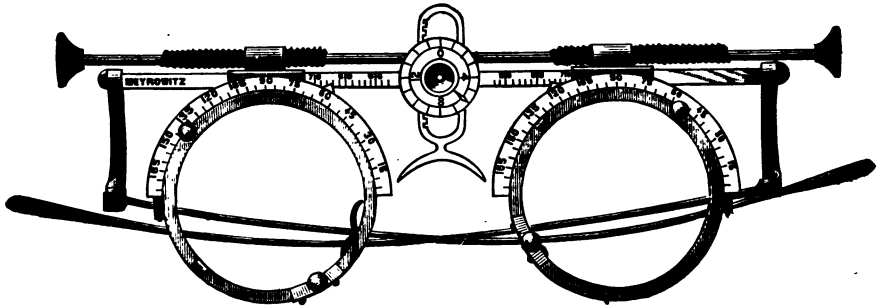


FIG. 18.

*Mode of examination.*—Place the patient at twenty feet from Snellen's test card.

Adjust trial frames, Fig. 18.

Test each eye separately, covering the other with opaque disc; see how far down the card the patient is able to read; if he is unable to read the top letters bring the card nearer and

note the distance from the card at which he can see the largest letters, if he can only see them at ten feet, whereas he should see them at two hundred, record his vision  $\frac{10}{200}$ ; if he is able to see half-way down the card at twenty feet, his vision is then  $\frac{10}{40}$ .

The eye should then be tested by concave or convex glasses. If convex glasses improve vision, then we know that we have a case of hyperopia, and if it is a case of simple hyperopia the strongest convex glass that gives the greatest amount of vision is the glass to be prescribed.

It is frequently advisable to set aside the power of accommodation by the use of a mydriatic (1 per cent solution of sulphate of atropia), dropped several times into the eye in order to bring to light the latent hyperopia, all or a part of which should be corrected by glasses. Frequently, however, especially if it be in a young person and the degree of hyperopia is not high, say one or two dioptics, only the manifest or facultative need be corrected, allowing the power of accommodation to compensate for the balance.

Although it is true that if a convex glass improves vision, we may be assured of hyperopia, it does not follow that we may not have hyperopia where convex glasses do not improve and where concave glasses do; as, for instance, in a hyperopic eye where there is some spasm of accommodation or where one is unable to relax the power of accommodation, a + glass does not improve but a weak — may, and here it is imperative that a mydriatic be used and continued often for several weeks ere the spasm will give way or the accommodation relax, and the true condition be revealed by the acceptance of a + glass. If it is a case of myopia, the weakest concave glass that will give the greatest amount of vision indicates the degree and the glass to be prescribed. If neither a convex nor a concave glass gives perfect vision or much improves, astigmatism should be looked for. In a similar way examine each eye separately, covering one with an opaque disc while examining the other. See if the patient is able to see the lines in the fan-shaped figure or dial, one equally as well as the other. If he is astigmatic the line in some special meridian will appear more distinct than others, and this will indicate the meridian of astigmatism.

To proceed with the examination, place a disc with

slot before the eye, rotate the slot to the meridian through which he can get the greatest degree of vision. If through this meridian he has perfect vision, say  $\frac{2}{3}$ , then turn the slot to the opposite meridian, as, for instance, if it is the  $90^\circ$  that the vision is  $\frac{2}{3}$ , turn it to the  $180^\circ$ , here perhaps it may only be  $\frac{1}{3}$ , more or less, then find the + or—glass that will give the highest amount of vision; if it requires a concave glass then it is myopic astigmatism; if it requires a convex, it is hyperopic astigmatism; if it be a case of compound astigmatism both principal meridians are ametropic and will require a glass of different strength. If, for instance, when the slot is turned to the  $90^\circ$  a glass of one dioptic is required to get  $\frac{2}{3}$ , and in the  $180^\circ$  two dioptries, then we have hyperopia of one D and hyperopic astigmatism of one dioptrie, requiring a spherical glass of one D and a cylindrical glass of one D, with axis cylinder in the  $90^\circ$ .



Figure 19.

A case of mixed astigmatism can be worked out in like manner. If the slot be turned to the  $90^\circ$ , and a convex glass is

required, and then turned to the  $180^\circ$ , a concave glass be required, then we know that we have hyperopia of the  $90^\circ$ , and myopia of the  $180^\circ$ , for example :

We have 2 D of h in the  $90^\circ$ , and 5 D of m in the  $180^\circ$ . Then we can correct this by giving crossed cylinders with the axis of each cylinder in the meridian, we do not wish to affect by the glass, as, for instance, in the case above place + 2 D C cylinder in  $180^\circ$ , and a -5 D C and  $90^\circ$ . It could be corrected by a sphero-cylinder, either convex or concave, according to combination.

Spherical + 2 D combined with a cylinder—7 D, with axis in the  $90^\circ$  would have the same effect, or we could use a spherical concave of 5 D with a spherico-cylinder + 7 D axis cylinder in  $180^\circ$ .

In prescribing glasses pupillary distance should be taken, and the glasses properly centered. A pupilometer (Fig. 19), for this measurement is convenient.

Gentlemen, in conclusion I may say that one of my objects in speaking of these several tests or modes of examining the eye and exhibiting the instruments necessary, is to further impress upon your minds the vastness of the subject of ophthalmology and the important figure it cuts in medicine.

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**Rebuked.**—The *National Advertiser* says: Doctors McCoy and Copeland, the two "advertising doctors" of New York, are still keeping up their gambling tactics. It is doubtless presumed by them that it is good advertising, and possibly they may attract a few weak-minded people whose intellects are undermined by disease. If they were scientific men or skillful advertisers, however, they would know that eventually no clear-headed men or women would intrust their lives or health in the hands of gamblers. If a doctor will descend to such methods in his business, he will gamble upon the life and health of his patients. Medicine is already too much of an experimental science, and when doctors come out and openly proclaim, it is high time in the interest of humanity to call a halt.

**THE TREATMENT AND MANAGEMENT OF ASTHMA.\*** By THOMAS J. MAYS, M. D., Professor of Diseases of the Chest in the Philadelphia Polyclinic, and Visiting Physician to the Rush Hospital for Consumption, of Philadelphia.

Asthma is a paroxysmal disease of the pneumogastric nerves, which throws the muscular fibres of the bronchial tubes into spasmodic contraction. Its prominent symptoms are itching of the head and neck, oppression and tightness of the chest, dyspnoea, bloating of the abdomen, pain in the region of the diaphragm, cough, expectoration and fever. Its causes are predisposing and exciting. (1) It may be inherited as asthma, and it may appear in children who come from consumptive or nervous families. It seems as if there is a predisposition necessary before the disease can develop. (2) Among the exciting causes are the inhalation of dust, powdered ipecacuanha, pollen of grasses and of roses, odors of certain animals, as cats, sheep, etc. Its relation to hay fever is very close. Practically, there is no difference between the two. I find that that which relieves the one will also relieve the other.

Its treatment resolves itself into that (1) which aims to give immediate relief from the paroxysm, and (2) that which aims to prevent a recurrence of the paroxysm.

Those remedies which relieve the paroxysm may be classified as follows: (1) central narcotics, consisting of morphine, belladonna, stramonium, hyoscyamus, tobacco, chloroform, ether, ethyl, bromide, etc., (2) emetics, consisting of lobelia, ipecacuanha, sauginaria, etc., and (3) the peripheral narcotics or relaxants, consisting of nitro-glycerine, amyl-nitrite, sodium-nitrite, pilocarpine, etc. Now all our more or less powerful therapeutic agents are stimulants to the general or special bodily tissues which they affect in small doses, while in large doses they paralyze the same. All the above named agents only relieve asthma when given in large or paralyzing doses; the central narcotics exerting their influence on the central nervous system, the emetics acting out the pneumogastric filaments, while the peripheral narcotics paralyze the vaso-motor or sympathetic nerves which supply the unstriped muscular fibres of the bronchial mucous membrane and blood-

\*. An abstract of a lecture delivered to a class in the Philadelphia Polyclinic, November, 1892.

vessels. While all these agents relieve asthma, and indeed in some cases are indispensable, it is quite clear in doing so they lower or depress the functions of the parts on which they act, and that they do not, therefore, come up to the ideal of an asthma remedy. The best among them are nitro-glycerine, one or two minims of a one per cent solution every three or four hours, by the mouth, and one-twentieth or one-tenth of a grain of morphine hypodermically, once or twice a day.

What then is the remedy which may be given continuously for the alleviation of this disease, and without the undesirable effects of the above named classes? Which drug will relieve asthma in stimulant doses? Such a drug, I believe, we possess in strychnine. Of course, we must bear in mind that all stimulants are only supplementary agents, which maintain the functions of the body without adding any direct material support to the same; but there is also good reason for believing that they cause the tissues to appropriate a larger amount of nutritive material than they would otherwise do; and in this way our stimulant drugs become tissue-builders. It has been shown that the power of strychnine in this respect is greater than that of any other stimulant. This drug has a special affinity for the nervous system, which action is especially accentuated on the pneumogastric nerves. In stimulant doses, it gives a supporting influence to the respiratory movements, and unlike morphine, lobelia, belladonna or nitro-glycerine, it does not depress or narcotize the nervous system. Asthma being a spasmodic disease, in what manner does strychnine bring relief? How does it act as an antispasmodic? The most probable theory of the spasmodic state is that there is at the beginning of the paroxysm a superabundant discharge of nerve force through the pneumogastric nerves, which throws the bronchial muscles into contraction. But whatever the intimate nature of this condition may be, it is evidence of nerve degradation, or nerve weakness, and strychnine, by elevating the tone of these nerves, increases the controlling power of the same. A stimulant dose of strychnine will depend on the age of the patient, and the length of time during which the drug has been given; although asthmatics, as a rule, will bear larger doses of strychnine than most other patients. Begin, as a rule, with  $\frac{1}{80}$  of a grain subcutaneously once a day, and gradually increase to  $\frac{1}{20}$  or to

$\frac{1}{16}$  of a grain, or more, if necessary, to impress the system with its full stimulant effects. Do not waste your time with small doses. To these amounts of strychnine small doses of from  $\frac{1}{16}$  to  $\frac{1}{8}$  of a grain of atropine may be added. It is best to administer these drugs in the evening, because asthma is nocturnal in its attacks and your patient should be protected so he can sleep at night. Additionally to its hypodermic use, this drug may be given in the following combination :

R Phenacetini.....gr. lxiiv.  
 Quininæ sulph.....gr. xxxii.  
 Ammon. muriat.....℥iiss.  
 Pulv. capsici.....gr. iv.  
 Strychnin. sulph.....gr. l½.  
 M. Ft. capsulæ. No. xxxii.

Sig: One capsule four times daily, or in the following :

R Strychninæ sulph.....gr. l½.  
 Syr. acid hydriodici,  
 Syr. hypophosph.....aa fl. ʒ ij.

M. Sig: One teaspoonful four times daily.

In fact, light cases of asthma require no hypodermic injection, and do well enough where the above named preparations are given. In severe cases, it is, of course, advisable to add morphine or nitro-glycerine to the strychnine, and atropine treatment, especially at the beginning. This treatment will break up the paroxysms, but even after they are broken, many old asthmatics still remain in the most abject misery. They may be compelled to sit up day and night, panting for breath, and still labor under the impression that they are suffering from asthma. This is a mistake; it is not asthma, but the natural state of exhaustion which follows asthma. The respiratory movements, as well as the whole nervous system, are almost completely paralyzed. It is disorder and chaos following the flood. The dyspnoea is not paroxysmal as before, but is felt now on the slightest exertion. This stage of the disease is most important from a therapeutic standpoint. Nitroglycerine, lobelia, and other narcotics are of no use. Rest is most essential now. They must do absolutely nothing. Lie down, if they can, or sit still. They should even be fed. I have known patients who were breathing comfortably bring on a most severe exhaustion-dyspnoea by merely undertaking to write a letter. During the rest treatment, give food of the most

nourishing character, such as freshly expressed beef-juice, a cupful a day, beef-powder, beef, mutton, milk, oysters, clams, etc. In this stage strychnine is also of the greatest value. Massaging is also to be used in desperate cases, so are rarefied air and calisthenic exercises obtained in the pneumatic cabinet treatment. To procure sleep at night, morphine may be added to the hypodermic injections of strychnine.

Success in treating asthma depends as much on the proper management of the individual as it does in the administration of drugs in the proper doses, and at the proper time. Principles can only be carried out by paying attention to details, hence each patient must be under the complete control of his physician in regard to his food, medicines, exercise and everything else. This pertains particularly to old asthmatics who are constant sufferers. If the instruction which is given this evening is closely followed, there are very few cases which will not yield to it; and, as an illustration of what may be done in desperate cases, I will conclude by relating the condensed histories of the two following examples, the second of which is still under occasional observation.

CASE I.—A., aged forty-six, a sufferer from asthma for thirty-five years, the attacks becoming more frequent and severe during the last three years. For four weeks before coming under observation he had been unable to lie down on account of his disease. The injection of strychnine gr.  $\frac{1}{8}$ , and morphine, gr.  $\frac{1}{8}$ , gave him almost immediate temporary relief. The morphine was discontinued after the second day, and one minim of a one p. c. sol., of nitro-glycerine every four hours was substituted. The strychnine was gradually increased and the nitro-glycerine omitted in the course of a week. Additionally he was kept quiet, received nourishing food, and strychnine by the mouth. In three days he was able to lie down, and in ten days more the asthma had disappeared.

CASE II.—B., aged fifty, an asthmatic for twenty-five years. Daily attack for one year, during which time he had been unable to lie down, day or night. Came under observation six weeks ago, and received about the same treatment as the previous case. The relief was prompt after each injection, but this had to be continued nightly for five weeks to keep the stubborn disease in abeyance. In two weeks he was able to lie down, and is now practically well.

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### OUR JUBILEE—THE HALF CENTURY MARCH OF THE ST. LOUIS MEDICAL AND SURGICAL JOURNAL.

Fifty years ago, on the fifteenth day of April, 1843, there appeared from the press of Chamberlain and Knapp, a twenty-page octavo magazine, bearing the legend on its title page: "THE ST. LOUIS MEDICAL AND SURGICAL JOURNAL, edited by M. L. Linton." The founder, in his introductory editorial, after giving several good reasons for the adding of one more to the already numerous medical publications of America, says of the new journal:

"It is the *ultima ratio*—the growing importance of our great and flourishing city demands and deserves such a periodical. St. Louis will have it, and we confess that it is a pleasant consideration that our enterprise is chained to the chariot-wheels of her destiny. *It must succeed! It will be sustained! It may, and it will, in time, pass into other hands. It may assume a new form, perhaps a new name, BUT IT WILL LIVE ON AND ON, IDENTIFIED WITH THE BEST INTERESTS OF A GREAT AND PROSPEROUS CITY.*"\*

Dr. Linton long ago was gathered to his fathers, and while a few of the men whose names appear almost in the first numbers of his journal as contributors and co-editors, are still living, full of years, wisdom and honor, still active in the daily practice of medicine, the vast majority to whom he addressed

\*The Italics and capitals are ours.—[Editors St. L. Med. and Sur. Journal.]

these prophetic words have returned to the dust of the earth—*transiti ad superos*. For fifty years the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, thus confidently ushered into the world, has through sunshine and shadow, through good and evil report, through the terrors of pestilence and the horrors of civil war, made its regular appearance, and though since Linton's, many hands have held its helm, and directed its policy and its fortunes, its name has never been changed, and it has ever been identified with the best interests of the great and prosperous city.

Commencing with a list of names almost entirely local, the JOURNAL to-day reaches the ends of the earth, each issue going to the hands of physicians in every part of the globe, from the frozen north of Siberia to the plains and mountains of India, in Australasia, Japan, China, Persia, the Sandwich Islands, South America, besides every country of Europe, Northern Africa, Egypt, etc.—*quæ regio in terris nostri non plena laboris?*

In celebrating our semi-centennial, the editors and proprietors have determined to make every number of the MEDICAL AND SURGICAL JOURNAL for the year 1893 a jubilee number, the principal feature of which will be as follows:

Each number from January to December inclusive, will contain a full-page photogravure of those who, since Linton's day, have been editors or editorial writers on the JOURNAL. Each of these will be accompanied by a biographical sketch of the person whose portrait is thus given. The first of these portraits and sketches appears in the present number. The February number will contain a similar portrait of Dr. W. M. McPheeters, who first came to the assistance of Dr. Linton. Dr. J. B. Johnson, and, if possible to obtain it, a portrait of and sketch of Dr. John S. Moore will follow. The others will come in due order.

Anticipating the event, the editors wrote personal letters to the most prominent men in the medical profession in Europe and America, asking each to contribute an article for the JOURNAL, the same to be published within the year. The responses were generous and most gratifying, the list of those who have announced definite subjects and dates including some of the first names of medical science of to-day. This list will be found elsewhere. These articles will be illustra-

ted in the highest style of art, whenever the subject permits of illustration.

Among the articles promised, some will be of a singular and absorbing interest, as will be seen by a glance at the appended list, and some will be of great historical value, such, for instance, as that from the pen of the venerable Dr. Joseph Jones, of New Orleans, La., on the Medical and Surgical History of the Army and Navy of the Confederate States. This, Dr. Jones writes us privately, is the crowning labor of his long and busy career, and we can promise with confidence that it will be of inestimable value to the medical profession of the whole country, but especially of the South.

Such, in brief, is the bill of fare that the ST. LOUIS MEDICAL AND SURGICAL JOURNAL has prepared for its semi-centennial banquet, and while we know that—

He that writes,  
Or makes a feast, more certainly invites  
His judges than his friends—there's not a guest  
But will find something wanting or ill-dressed.

Nevertheless, the editors invite the attendance thereto, of the physicians of the world. Amid the abundance and variety of the dishes, he surely will be a captious critic who leaves the table unsatisfied.

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PROF. M. L. LINTON, M. D. A Sketch of his Life, by his daughter, MRS. ANNIE LINTON SAWYER.

It is with a feeling of great satisfaction, that I comply with the request of Dr. T. L. Papin to write a sketch of the life of my beloved father, the late Prof. M. L. Linton. I consider it very generous in my friend, who was regarded by my father with the affection of an approved son, to give way to me as he was asked by the Dean of the St. Louis Medical College, Dr. H. H. Mudd, to write this article.

There is little danger of my not saying enough, for my pen will run on indefinitely, if I give full scope to my recollections of my father. Dr. Papin wrote: "Dear Annie, Give us something to read to our children, about that great man, your father, who were not so fortunate in knowing him as we were," and so I shall try to make it interesting to members of the medical fraternity, his co-workers and students and their

children. In reading a biography I am pleased with glimpses of the home life, and who can better portray that than a loving daughter? I have always thought that loves never conflicted, and my heart is a perfect mosaic, the central piece contains the love and admiration of my father, and I thank God for bestowing upon me such a parent. His memory has never seemed to fade; the loving words expressed by the old friends and patients to-day, after that dear one has been sleeping in his grave for twenty years, prove to me that our deeds live after us. He was the friend of the poor, and rich and poor alike, loved and respected him. The best husband, tenderest father and truest friend, and most faithful and sympathetic physician, and above all, or rather embodying all, a perfect Christian gentleman was my father. Prof. M. L. Linton was born in Nelson County, Ky., April 12th, 1808. His father was a farmer from London County, Va., who raised his son as the sons of industrious, though poor, farmers are usually raised, by working on the farm and occasionally going to school; but the school which he attended was of a very inferior quality. However, there was a grammar school established in his neighborhood, to which he went for six weeks and mastered the English grammar, so much so, that in a competition he took the prize over his teacher. In my grandfather's house lived a physician, and my father, anxious to glean knowledge from every source, would read the medical books thus thrown in his way, and at once evidenced a desire to become master of their contents. This influenced him in the choice of his profession. While he was felling the giant oaks in a Kentucky forest to make rails to fence his father's farm, he carried his book with him as a companion, and although for this reason the opening where the sunlight had not penetrated for centuries was slowly enlarged, he spent that physically lost time in permitting the light of learning to penetrate a brain that his youthful mind had determined should command the respect and admiration of the members of his chosen profession; and it did. As in all such cases, he made rapid progress and was soon out of the woods and in his new field of labor. He felled many a false theory, and let the light of truth penetrate where darkness had reigned for centuries before. When my father arrived at the age of manhood he went to Springfield and studied medicine under Dr. I. H. Polin, with whom

he remained two years with great benefit, possessing rare advantages; for Dr. Polin was at once biased in his favor, and not only gave him the careful instruction necessary for his profession, but being an accomplished scholar, instructed him in the Latin and Greek languages, and other branches which had been neglected, and which are so essential to the physician and gentleman. After leaving Dr. Polin my father graduated at Transylvania College, Lexington, Ky., and commenced practicing in Hancock County, where he remained for two years. He then went to Springfield, where he entered into partnership with Dr. Polin, his former friend and instructor. In 1837 he became acquainted with and married Agnes Rachael Booker, and right here I do not deem it out of place to throw sufficient light upon my mother to reveal her noble, self-sacrificing character. Her father, being wealthy, wished to give her a handsome trousseau. Her reply was, "No, father, I am marrying a poor, but honest man, whom I love most devotedly. A fine trousseau would be out of place. As his wife, I prefer a simple outfit, and the remainder given to Dr. Linton, that he may spend it upon perfecting his medical education in Europe." My grandfather, Judge Paul J. Booker, considered this very wise and praiseworthy, most cheerfully complying with her request. So my father, in 1839, leaving his wife and little daughter, Lucy, in her father's home near Springfield, through mother's generosity went to Europe. He passed one year abroad, visiting the various hospitals and institutions with which the old country abounds. Considerable time was spent in Paris in company with Dr. Charles A. Pope, to whom he became warmly attached, and the affection being heartily returned, they lived the remainder of Dr. Pope's life the most intimate and sincere friends, a mutual benefit as "mind with mind did blend and brighten." On my father's return to Kentucky, or soon after, he was invited to take a professorship in the medical department of the St. Louis University, and urged by my wise mother he accepted, and occupied the place for twenty-six years, the chair now being filled by Dr. J. B. Johnson, who at least once a year invited father to attend the Negro Minstrels as father believed comedians to be public benefactors, and with O. W. Holmes that "care to our coffin adds a nail no doubt, while every laugh draws one out."

Father was devoted to his profession, and returning to the pursuit of his choice, he established the *St. Louis Medical Journal* in 1843, which he edited with great ability, and possessed the entire confidence of the profession. Dr. McPheeters was associated with him in the editorial charge of the *Journal* for many years. How well I remember, and with what pride I complied with his request when he would say: "Daughter, give me some music. I can write better when you play and sing." He wrote a great deal of his meditations in a doctor's buggy, also on religious subjects. Many beautiful poems flowed from his pen, and during the civil war, believing the pen mightier than the sword, he used it freely. My father was a staunch Union man, never deeming it necessary to sacrifice principle to friendships, money or politeness, he stood for what he conceived right, and although his bank account was doubtless lighter, my pride in my father's integrity is four-fold. In speaking of his writings, before I conclude, I shall quote from his *Outlines of Pathology*, which was a text-book, perhaps so now. He was a firm believer in nature's ability to cure disease in most cases, for he said:

"A masterly inactivity, so far as the administration of drugs is concerned, is often the best evidence of medical skill. To know when not to act is as precious a piece of knowledge as to know when and how to act. Indeed, a knowledge of one is a knowledge of the other. The physician is the minister and not the tryant of nature—that he may aid her when her actions are too feeble—that he may repress her ardor and that he may change her direction. What physician pretends that he can directly cure a case of typhoid fever, and yet, all admit that the physician can do something—can be of some service. Yea, of great service. Everybody that thinks and observes knows that the human system is so beneficently constructed, that it can act as its own doctor in many, we may say, the majority of cases. Every physician knows the majority of cases, say of typhoid fever, will pass through all their stages safely and terminate in health without the doctor's aid. This does not prove that a physician might not have been serviceable; it only proves that nature can cure disease, or what means precisely the same thing, that diseases get well themselves. But everyone knows also, that in many cases of depression, the system cannot rise to reaction without

aid which the physician can employ, and here he becomes a support of nature."

To-day these truths cannot be gainsaid. That his great mind grasped the idea that disease might originate from microbic cause seems evident, as half a century ago he asks the question: "May not the cancer-cell and tubercle be due to a parasite of animal, or vegetable origin?" Father had a tender, loving heart; he was considerate and kind, and generous to a fault. My grandmother used to say that his failings leaned to virtue's side. I have often heard him prescribe food instead of medicine, and tell his patient to use the money offered for advice in a visit to the butcher's and baker's instead of druggists.

He was fond of dumb animals. My mother was a veritable martyr to his and her children's pets. He carried sugar and apples in his buggy for his horse, and the greatest attachment existed between master and beast. I remember his pet coon; when father would come in from his professional visits, the little children, Eliza, Margaret and Caroline, and the coon would make a scramble for his pockets, hunting for nuts, candies, etc. Sometimes the coon would get the better of them, to father's great amusement. When a little girl I lost my pet dog, Lily. He had a coffin fashioned for it and his Nonie (this was my pet name) was taken into his arms and buggy, a string of blue glass beads bought to comfort her little feminine heart, and a cocoanut added with little thought of her digestion.

Fearing I have already gone beyond the space allotted me I will conclude. When the life of my father was closing, he turned to the faithful and loving companion of thirty-five years and said: "Wife, in my father's house there are many mansions, there are two Doctor Linton's, one is going from you, but the other will be always with you." She ever felt that he was, and this proved a constant solace to her.

And I think now, though dead, he lives, and may we live worthy of him and be reunited.

My father died the first day of June, 1872, in the sixty-fifth year of his life, at his lovely home, Mamesa, (his gift to my mother in remembrance of her generosity to him) near the retreat of his cherished friends, the sons of Lyola. His warm friend, Dr. E. H. Gregory, and his approved son-in-law, Dr.

Amos Sawyer, received his last breath, and lovingly closed the gentle, clear eyes that had looked for the last time on earth, but I believe are looking now on his field of labor and loved ones from his Father's mansion.

He fondly hoped his gifted young son would carry on his loved labors, and had Brother Ben lived, doubtless the mantle of my distinguished father would have fallen on his shoulders; but God willed that he should soon follow.

As the little group of his own stood around him, Dr. Gregory said: "There lies the purest man I ever knew; he proved to be the pearl of virtues."

On the 5th of June, we laid him away in beautiful Calvary to sleep in the shadow of the cross until the sounding of the judgment trumpet, with an assurance on which hand of his Savior he would arise.

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AN OFFER WHICH IS UNPARALLELED is made to its readers by the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, and it is one which we would like to see all take advantage of. To all new subscribers of the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, it and the *Medical Review* will be sent for one year on receipt of \$3.00. The ST. LOUIS MEDICAL AND SURGICAL JOURNAL is a monthly of 64-octavo reading pages, and as the year 1893 will be its semi-centennial, unusual efforts have been made to render it more than usually interesting. A large number of the most prominent physicians of this country have promised to contribute papers, the majority of which will be illustrated. The *Review* is a weekly retrospect of 20 quarto pages, and in connection with the JOURNAL will form a most valuable and instructive medical library offered at a price which is unparalleled in the annals of periodical literature.

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Berlin has one hundred and eighty three "Policlinics," so called, and the thing is getting to be over-done; the policlinics are really only private dispensaries.

## Microscopy.

### Spermatogenesis in Mammals and in Man, III.\*

An interesting question now arises : How are the spermatides transformed into spermatozooids ?

Let us for a few moments consider the structure of the spermatozoid. The head, as we know, consists of a nucleus, covered with a thin protoplasmic layer. The tail is more complicated—a fact not hitherto admitted. It is composed of a larger intermediary segment attached to the head, discovered some time ago by Schweiger-Seidel, and two other segments which diminish gradually to a point. One of these two is rather voluminous, and forms the major part of the tail. It is called the principal segment, and joins the intermediary segment. The other, very short and very minute, terminating in a point, is called the terminal segment.

These segments are composed of an axial filament decomposable into longitudinal fibrillæ, covered with a protoplasmic envelope which, however, is wanting toward the end of the terminal segment—a fact which explains the excessive minuteness of that segment, here reduced to the axial filament alone.

The spermatides are at first, as we have seen, round or oval cellules, with a clear nucleus, the chromatine rejected by the nucleus forming a strongly colored crescent on one side. The clear portion of the nucleus disappears little by little until nothing is left but the chromatic portion, and the spermatide is converted into the head of the spermatozoid. The tail next appears as a filament somewhat stronger colored, which emerges from the nucleus of the transparent nucleus of the spermatide, traverses the protoplasmic envelope, and emerges from the body of the cell. The protoplasma disappears little by little as the tail grows longer until, as stated, it fails altogether in the terminal segment.

In a word, the transformation of the spermatide consists in the adaptation of the nucleus to the formation of the head of

\* Concluded from the December MEDICAL AND SURGICAL JOURNAL.

the spermatozoid, and the appearance of a tail which comes into existence as a simple differentiation, arising from the body of the cellular protoplasm, and is prolonged beyond the limits of the latter.

Such is the *schema* of facts, very much simplified, but of which the exact details need not be described here, because their importance varies according to circumstances, but mainly because their existence in man has not yet been definitely worked out. Thus, for instance, there is a body found in the spermatozooids of certain animals, that has attracted much attention—the *Nebenkern* of the German physiologists, or to be plain, the accessory nucleus, or small body, usually easily colorable by reagents, found in close proximity to the cellular nucleus. This body, according to the most recent investigators (Plattner and Prenant), consists of a residue of achromatic threads of the spindle (*le fuseau-de Spindel*, a stage in karyokinesis) which obtains at the last cellular division of the spermatides. Opinions vary as to its role and importance, and we are not sure that the last does not vary considerably according to circumstances. The *Nebenkern* may sometimes give origin to several different parts of the spermatozoid, as in the case of the Triton. Here it divides, according to Hermann, into three parts, one of which gives rise to the intermediary segment, another to the undulating membrane with which the tail of the smarmatoid in these animals is provided, and the third disappears, apparently, without performing any function.

Possibly, in certain cases, this accessory nucleus corresponds to an essential organ which the tendency of to-day is to accord to all cellules—the “attractive sphere.”

We know, in fact, that certain small colorable bodies, situated outside of the nucleus, preside over cellular division. Ed. van Beneden has given them the name of ‘spheres of attraction’ or attractive spheres, and he is of the opinion that every cell capable of self-division is provided with them. These attractive spheres have recently been found accompanying the male and female pronuclei during fecundation, and they have been seen to conjugate like these pronuclei (Hermann Fol, Gagniard, etc.). The head of the spermatozoid, which furnishes the male pronucleus, probably encloses an attractive sphere, though it has not yet been differentiated.

It may be, at least in certain cases, that what has been designated as *Nebenkern*, may be nothing more nor less than the attractive sphere of the spermatozoid, but that this is not always the case is proven by the fact that the attractive sphere and the *Nebenkern* have been found to exist in the same spermatide (Prenant).

The production of the spermatozoid, then, resolves itself into a simple differentiation of an element arising from successive proliferation and metamorphoses of a cellule of the parietes of the semeniferous canals.

#### MATURING OF SPERMATOZOIDS.

A theoretic question of great importance arises at this stage of our consideration of spermatogenesis. We know that the ovule, before reaching the condition of fitness for impregnation, must be deprived of a certain portion of the substance brought to it by the polar globules. Resting on this fact Minot first, and after him Ed. van Beneden, have suggested the following theory :

The fecundated ovum, resulting from the fusion of the male cell, the spermatozoid, and the female cell, the ovule, is hermaphrodite. All of the cells of the body are derived from it, the cells of the sexual glands included. To prepare itself for fecundation, the hermaphroditic sexual elements again become unisexual by rejecting a part of this substance. The ovule, by expelling the polar globules, reject the male substance and thus become purely female elements. It has been thought reasonable to suppose that the spermatozooids in like manner purge themselves of the female element derived from their ancestor, the fecundated egg, and become purely male.

If this be the case, what are the elements that represent the polar globules in the testicle? Formerly, this function was ascribed to the follicular cells or sustenance cells, but that is hardly admissible now. Outside the fact that the existence of follicular cells in mammals has not been established in an incontestible manner, if these cells do exist (and in logical consequence the theory of the dualistic composition of the testicle is true) the follicular cells do not owe their origin to other testicular cells and cannot, consequently, take away, in separating from them, any substance whatever.

Edward van Beneden claims to have found among sperma-

tozoids in the testicle of the *Ascaris megalocephala*, certain elements, born at the same time as the spermatozoids, presenting polar globules, but O. Hertwig does not confirm him and states that he has never encountered similar elements.

Many other theoretical explanations of the ripening of spermatozoids have been advanced. M. Renant, for instance, noting the new arrangement of the chromatine of the nucleus of the spermatide, as it masses itself into a crescent at the periphery in the formation of the head of the spermatozoid, suggests that in this repartition of the chromatine we have a phenomenon parallel, but not homologous, with the formation of the polar globules. According to him the homology is seen only in gasteropods (*Helix pomatia*) where the testicular cells put forth spermatid bourgeons and sterile bourgeons, which latter represent the polar globules.

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### Dermatology and Genito-Urinary Diseases.

**The Reaction of Normal Sweat.**—Heuss (*Monatsheft für Prakt. Dermatologie*) first cleansed the skin thoroughly with neutral fluids and then collected the sweat in a watch-glass and carefully tested it. He found the sweat of healthy men, during rest to be normally acid; but when profuse perspiration occurred, as after the administration of pilocarpin or of boracic baths, it became neutral or even alkaline. The reaction of the sweat is to be distinguished from the acidity that a section of the skin presents in all parts of the body, which extends as far as the prickle cell layer, for even when the sweat is alkaline the skin may be acid. The normal acidity of the sweat is the product of the less acid, or possibly even alkaline secretion of the sweat glands, and of the acid and cutaneous fluid; and its increase of alkalinity when the secretion is strongly excited by pilocarpin or heat, depends essentially on the relative proportion of the sweat to the cutaneous fluid.

**Treatment of Favus.**—Dr. Sheldon G. Evans, U. S. N., gives the results of treatment of one hundred and thirty-nine cases of this disease, occurring aboard ship, all the cases, with few exceptions, being among the apprentice boys (*Am. Pract.*

*and News*). The origin of the disease was traced to an apprentice boy from Germany. The cases are not detailed, but the disease seems to have manifested no peculiarities. The treatment (which was suggested by the senior medical officer of the ship, Dr. Price) was eminently satisfactory. The hair was cropped short and kept so during the treatment. The effective remedy was an alcoholic solution of bi-chloride of mercury (1:500), applied with stiff brushes, the scalp being scrubbed with the solution every other day for a week or ten days, and then bathed twice a week with a solution of the same strength prepared with water and glycerin. When the scalp became inflamed, mild sulphur or mercurial ointment was used. The cases all improved rapidly, many were entirely cured, and none developed a second attack.

**Distribution of Mercury in the Organs.**—In a paper read at the Second International Congress of Dermatology and Syphilography, recently held at Vienna, Dr. Ulmann reported on the results of his study, by means of Ludwig's procedure, of the mode of the distribution of mercury in the different organs (*Merck's Bull*). In every case—no matter what mercurial was employed, but particularly when the latter was administered by injections—the greater portion of the mercury was found in the kidneys, the liver, the spleen, and the intestine,—the large intestine containing the most and the stomach the least. At the points where there existed extensive alterations of the mucous membrane, the mercury was most abundant. The brain and the lungs contained traces of the metal.

In the salivary glands, only imponderable traces of mercury were found, and the saliva contained none at all; so that the author thinks the salivation produced by mercury ought to be considered merely as a reflex phenomenon. These researches thus confirm the opinion of Roger, who attributes to the liver an important part in the excretion of poisons accumulated in the organism.

**Rearing Syphilitic Infants.**—Dr. Nicolle recommends that an infant with hereditary syphilis should be reared as follows (*Med. and Surg. Rep.*):

1°. It should be nursed by its mother, or if this is not possible, by a nurse who is syphilitic.

2°. If neither mother nor nurse can be secured, it is well to let the infant take the milk direct from the teat of an ass, but only for the first few months.

3°. This must be replaced later on by cow's milk. The arrest of development in the infant indicates the time when this change should be made.

4°. In the impossibility of securing ass's milk we must resort to diluted cow's milk, sweetened and boiled.

5°. Whatever food is adopted, it must be continued much longer than in the case of a healthy child. It seems to the author there would be an advantage in giving goat's milk, taken from the udder of the animal, from the age of six or eight months up to sixteen months longer.

6°. Treatment by Van Swieten's fluid—from fifteen to fifty drops per day, according to the age, strength, intensity of the manifestations, etc.,—is advised.

7°. Most minute attention should be paid to hygienic measures—baths, change of air, etc. O.D.

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### Excerpts from Russian and Polish Literature.

**Corneal Ulcers in Asiatic Cholera.**—In the *Gazeta Lekarska*, No. 47, 1892, p. 1015, Dr. Zapolski-Downar, of Lublin, Poland, draws attention that in such cholera cases which pass into the typhoid stage, there supervenes a total anæsthesia of the cornea, no reflex phenomena being induced either by touching the structure with a finger, or by flies which manage to get access to the patient's open eyes. In the absence of appropriate precautions, such patients are very liable to contract corneal ulceration, the process being due to local irritation by dust and flies, as well as to the agency of some microbes present in the dust or introduced by the insects. According to the author's observations (who saw scores of such cases during the recent epidemic of cholera), the ulcers mostly attack the lower segment of the cornea, and then have either oblong or arcuate outlines. Occasionally, however, they are situated in the central area of the membrane, assuming a circular form and sometimes penetrating deep into the proper

tissue of the cornea. In four cases of the latter category, seen by the writer, the ulcer involved Descemet's membrane, while in two, hypopyon was present, and in one, prolapse of the iris (through a corneal perforation) occurred. To prevent the complication, the author recommends: 1°. A systematic instillation into the conjunctival sac of a 1 to 6,000 aqueous solution of corrosive sublimate, and 2°, the protection of the patient's eyes from flies by means of a gauze bandage. As soon as the ulceration has been noticed, the lesion should be cleansed by irrigation, and the following ointment applied:

℞ Hydrargyri præcipitati flav..... gr. ij.  
Vasellini..... ℥ ij.  
M. et fiat unguentum.

D. S. Introduce a bit of the salve (by means of a narrow strip of thin paper) beneath the upper eyelid, after which make a gentle massage (through the eyelid, of course), by means of a finger, or a piece of cotton-wool.

The lesion rapidly heals, leaving some opacity, which subsequently disappears under the same treatment. In deep central ulcers with hypopyon, warm compresses, soaked in the said corrosive sublimate lotion, should be applied, and a 1 to 500 aqueous solution of blue pyoktina instilled into the eye.

Ichthyol in Erysipelas.—In the *Zemsky Vratch*, Nos. 39 and 40, 1892, p. 595, Dr. Alexei G. Glinsky, house physician to the Gubernjkaia Zemskaja Bolnitsa, in Poltava, states that during the last four years he tried ichthyol in 128 cases of erysipelas. The remedy was employed either (a) after the following formula:

℞ Ammonii sulphoichthyolici,  
Collodii elastici..... ana 100 grammes.  
Ætheris sulphurici  
Spiritus vini rectificati..... ana. q. s. ad. solutionem.

M.

D. S. To paint (by means of a brush) the diseased area and the adjacent apparently sound zone (measuring about three or four fingers' breadth).

Or (b) in the shape of Liebreich's salve:

℞ Ammonii sulphoichthyolici,  
Lanolini puri, ana,  
M. f. unguentum.

D. S. To rub into the affected parts twice or thrice daily.

Every one and all of the author's patients made a quick

recovery. The following conclusions are drawn by him from his observation :

1°. Ichthyol is decidedly the best means of all yet proposed for the treatment of erysipelas.

2°. The drug rapidly arrests the spread of the morbid process and reduces the average duration of the disease down to two or three days.

3°. The method is of the greatest value in cases of erysipelas occurring in patients with chronic nephritis, inveterate fungoid disease of bones, etc. ; in short, in all such cases in which there is present cardiac weakness due to fatty degeneration of the heart, and in which cardiac paralysis can be easily induced by the absorption of erisipelatoid toxalbumins.

The following methods were also tried by Dr. Glinsky, but proved useless in his hands : Hueter's subcutaneous injection of a 1 or 2 per cent aqueous solution of carbolic acid ; compresses with a 1 per mille corrosive sublimate lotion ; inunctions of ointments with camphor, carbolic acid, sulphate of iron ; painting with a glycerine solution of perchloride of iron, turpentine oil, iodine tincture, solution of nitrate of silver, mixture of collodion with ether and iodoform ; application of adhesive plaster and icebags ; delineation with solid nitrate of silver ; internal administration of salicylate of sodium (*℞ Sodæ Salicylicæ* 5 to 8 grammes ; aq. dest. 200.0. M. D. S. A tablespoonful every two hours) benzoate sodium (*℞ Sodæ benzoicæ* from 8 to 15 grammes ; aq. dest. 200.0. M. D. S. A tablespoonful every two hours), antipyrin (0.5 or 1.0, 3 or four times a day) antifebrin (0.25 or 0.5, every two hours), sulphate of thallin (0.06 to 0.12 every hour until decrease of the temperature), iodide of potassium (*℞ Potastii iodidi* 5 grammes, aq. dest. 150.0. M. D. S. A tablespoonful every two hours), *tinct. ferri muriatici* (from 8 to 15 grammes *pro die*), quinine.

Nitrate of Silver in Asiatic Cholera.—In the *Vrach*, No. 14, 1892, p. 1122, Dr. Peter F. Odartchenko of Belgorod, highly recommends the treatment of cholera with the internal use of nitrate of silver. The administration should begin with the dose from  $\frac{1}{16}$  to  $\frac{1}{8}$  grain of the remedy (dissolved in distilled water). As soon as vomiting has ceased, which usually occurs after a couple of doses, the drug should be given in the dose of  $\frac{1}{16}$  or  $\frac{1}{8}$  grains, several times daily. In the

presence of profuse diarrhoea the nitrate should be employed in the form of enemata as well (1 grain to 1.5 litre of boiled water). Of 106 cases treated by the author after this method, only twenty-one died, the remaining ending speedily in complete recovery. Dr. Odartchenko believes that nitrate of silver constitutes "an antidote for cholera toxines."

**Therapeutic Effects of Hydro-Chlorate of Phenocoll.**—Dr. Kucharzewski (*Kronika Lekarska*, October, 1892, p. 488) tried hydrochlorate of phenocoll in three cases of pulmonary tuberculosis, one of typhoid fever, one erysipelas, two sciatica, one biliary colic, one chronic inflammation of the spinal cord, one facial neuralgia, and five acute articular rheumatism. The following are the principal results arrived at by the author:

1°. Phenocoll is a good and reliable antipyretic remedy which proves efficacious even when administered in comparatively small doses (from 0.06 to 0.5 gramme). Not infrequently a single dose suffices to lower the temperature down to the standard. In a majority of cases, however, two or three doses are necessary for the purpose. The fall of the temperature is sometimes accompanied by perspiration.

2°. Anti-neuralgic effects of the drug (given in the same small quantities) appear to be less powerful. [In some of the writer's cases the pain was relieved completely, but in others only a partial relief could be obtained].

3°. Of five cases of rheumatism, three were rapidly cured, while in the remaining ones phenocoll only lowered the temperature without manifesting any influence on the course of the disease itself.

4°. Even when given in the daily dose of three grammes, phenocoll does not give rise to any disagreeable accessory effects.

5°. The use of the remedy is frequently accompanied by a dark discoloration of the urine.

**Syphilis Insontium.**—At a recent meeting of the St. Petersburg Russian Syphilidological and Dermatological Society (*Vratch*, No. 45, 1892, p. 1149) Dr. H. I. Lewi related nine cases of extra-genital syphilitic infection, all of which had come under his own observation (in the Kalinkinskaia Bolnitsa) during the last seven months. In two patients the pri-

mary sclerosis was situated on the lip; in two on the nipple (in suckling women), and in five on the tonsil. One of the latter cases referred to a woman who contracted the disease from her infant with labial and lingual papules. The baby had been infected during its stay with a friend's family at a village. The two other cases were those of a man and his wife, the former having hard chancre of the left tonsil, the woman of the right. —Dr. D. A. Tchapin similarly communicated two cases of tonsillary hard chancres. In one of them, referring to a virgin, the lesion was accompanied by a very large glandular swelling near the angle of the lower jaw, which was mistaken for an incipient cervical phlegmon and, accordingly, cut into. —Another instance of primary sclerosis of the tonsil was lately observed by Dr. A. I. Būdugoff in Professor N. M. Tarnevsky's clinic.

[In the *Meditsinskaia Pribavlenia K'Morakomu Sborniku*, October, 1892, p. 246, Dr. G. N. Gritzoff, house-surgeon to the Naval Hospital in Sevastopol, details a case of a sailor, who was admitted to a general ward on account of painful and difficult swallowing, ulceration of the right tonsil, enlargement and induration of the right-sided submaxillary and cervical glands, and fever. An "*amygdalitis follicularis dextra et parotitis*" were diagnosed and the man treated accordingly for about five weeks, until the appearance of an exanthem. On examination by the author, the rash proved to be a syphilitic one, and the tonsil was found to be occupied by a typical hard chancre. The same writer (*ibidem*, September, 1892, p. 199) recently met with a case of hard chancre ("*plaque serpiginieuse*") on the lower lip, situated on the mucous membrane near the oral angle. The submaxillary glands were enormously enlarged, the inguinal quite normal. The patient, a sailor, had contracted the infection through kissing, and a promiscuous smoking of cigarettes, with a woman who had labial *plâques*. A batch of American cases of extra-genital syphilitic infection has been published by Dr. E. Harrison Griffin in the *New York Medical Record*, October 1, 1892.—*Reporter*.

VALERIUS IDELSON, M. D.

Berne, Switzerland,

## Book Reviews.

**A Manual of Physics:** Being an introduction to the Study of Physical Science. Designed for the Use of University Students. By WILLIAM PEDDIE, D. Sc., F. R. S., E. 12mo. pp 501. [New York: G. P. Putman's Sons, London: Ballière, Tindall & Cox. 1892.

This is certainly a valuable as well as a scientific exposition of the subject with which it deals. It is written by one who has mastered his subject, and its proper presentation. As its title indicates, it is intended for the use of university students, or such as are equally advanced in pure and applied mathematics. To any one else it will certainly prove a sealed book so far as deriving more than an inkling of the subject is concerned. No pretence is made to go into the subject of physics thoroughly. The principles of the science are presented in a very complete manner, and the laws formulated in a clear and concise manner. Those who are unable to follow the mathematical calculations are not necessarily debarred from deriving profit from the work. They must simply accept results as they are stated, without the satisfaction of being able to verify them in the only proper manner, which is thoroughly convincing.

One great advantage to be derived from a study of this work is a fuller appreciation of the value of hypotheses. The author has a happy faculty of diminishing the dryness naturally inherent in a manual of this character. He introduces descriptions of experiments which are of easy performance, and which, at the same time, completely demonstrate the points which are spoken of, whilst they form a chain of conclusive evidence in support of the theories advanced. To aid still further in the task of simplifying the text, numerous illustrations are appended, chiefly of a geometrical character. The chapter devoted to electricity, galvanism and magnetism are especially valuable, and are written in a singularly clear manner. Anyone who will carefully read this portion will acquire a comprehensive idea of the subjects which are dealt with.

On the whole, the work is certainly one which reflects much credit upon the author as a painstaking, capable, and lucid interpreter of the subject he has undertaken to simplify.

**Medical Microscopy.** A Guide to the Use of the Microscope in Medical Practice. By FRANK J. WETHERED, M. D. Small 8 vo. pp. 406. Illustrated. [Philadelphia: P. Blakiston, Son & Co., 1892. Price \$2.50

This work, while containing nothing new or original, is

nevertheless an excellent manual for the use of the practitioner who desires to be his own microscopist, and to investigate for himself instead of relying on the expert. The author has not made the mistake so common in almost all works on medical microscopy, of mixing up pathology, histology, and the microscopical appearances of objects, along with the technique of preparations. The author, after giving in the first chapter descriptions of the various stands and optical accessories that are deemed by him most suitable to the general work of the practitioner, plunges directly into the minutiae of technique, commencing with the preservative fluids, the hardening agents, etc., and passing thence to embedding, section cutting, staining and mounting in regular order. Chapters are devoted to injection of tissues, the preparations of special tissues, etc., and to special methods of preparation, staining, etc. Chapters are devoted to the examination of tumors, to urinary examination, examination of fæces, sputum, vomit, blood, etc., the final chapter being a résumé of bacteriological methods.

Almost all the matter is entirely English or German; so far as authorities, etc., are concerned. American methods and workers are not alluded to, and the French are treated nearly as badly. A notable exception to this rule, however, is made in speaking of American microscopes and accessories, Bausch and Lomb's "Universal Stand" being complimented by special mention.

The index is full and accurate, while the paper, printing and binding leave nothing to be desired. The type is especially clear and clean, and the pictures are in the best style of wood engraving. Jno. L. Boland, Washington Ave., has the book for sale.

**Mother and Child.** Part I: Mother. By EDWARD P. DAVIS, M. D. Part II: Child. By JOHN M. KEATING, M. D., LL. D.; 8 vo., pp. 472. [Philadelphia: J. B. Lippincott Co. 1893. Price, \$2.00.]

This work is constructed upon a plan in which the work of the collaborators is kept distinct, although each one has given his endorsement to that of the other. It is certainly more satisfactory to have this individualization, as it seems to enable the reader to attach the responsibility where it properly belongs. In the case of the book before us, however, the general merits are of such a high class that any writer would be proud to assume the responsibility of being the author of so good and valuable a guide. The work is intended not only for physicians, but for intelligent laymen as well. It does not deal with "popular" medicine, but rather seeks to give information in such a manner that the true value of the physician will be properly estimated, and no attempt made to supplant him in the performance of the functions which are pe-

culiarly his. On the other hand, it contains much valuable advice, which is not only of benefit to the mother and child, but also renders the work of the doctor more satisfactory and efficient for good. We can heartily commend it to the medical profession, with the full assurance that once read, each one will see to it that a copy finds its way into the hands of his patients.

**A Manual of the Practice of Medicine.** Prepared especially for students. By A. A. STEVENS, A. M., M. D., 12 mo., pp. 501. Illustrated. [Philadelphia: W. B. Saunders. 1893. Price, \$2.50.]

This is among the best small works on the practice of medicine which we have had an opportunity of reading for quite some time. The author has been quite thorough in the consideration of his subject, and he treats of diseases not usually found in works on practice. Among the subjects seldom mentioned in books of the character of the one before us, we may mention nervous diseases, skin diseases and cutaneous syphilis. The general considerations are well written, although necessarily condensed, on account of the limitations of space imposed by the smallness of the work.

The therapeutic measures are so thorough, as a rule, that we are quite surprised to note that the author has omitted to mention the good effects of nitrate of strychnia in chronic alcoholism. However, we cannot expect an author to mention everything, and it may be preferable to have him merely note those things which, in his experience, have proven satisfactory. As a good guide to medical students, the work before us can be safely recommended as one upon which they can depend, not as a substitute for the larger works, but as a valuable adjunct thereto.

**Diseases of the Lungs, Heart and Kidneys.** By N. S. DAVIS, Jr., A. M., M. D. 12 mo. pp. 359. No. 14 in the Physicians' and Students' Ready-Reference Series. [Philadelphia and London: The F. A. Davis Co. 1892. Price, \$1.25 net.]

The subjects which are considered in this little book are certainly of the highest value to those engaged in the study and practice of medicine. The contents of the volume before us are an elaboration of lecture notes, and for that reason preserve a certain amount of that dogmatism which is a necessary accompaniment of medical lectures. The symptomatic features of the subjects noticed receive full consideration, as also: the therapeutics. Pathology is not so fully entered into, and controversial points have been judiciously omitted. The book reveals to us that the author is progressive and well up to the times, points which should certainly recommend it to a favorable reception at the hands of its readers.

### Literary Notes.

**Announcement.**—E. B. Treat, Publisher, N. Y., has in press for early publication the 1893 *International Medical Annual*; being the eleventh yearly issue of this extremely useful work.

A glance at the prospectus gives promise that the 1893 issue will be better than any of its predecessors.

There are thirty-eight distinguished specialists on its corps of editors, carefully selected from among the most eminent physicians and surgeons of America, England and the Continent.

It arranges in a practical way for ready reference what is worth preserving of the year's medical literature, together with a number of important papers specially written; and will contain over 6 000 references to diseases and their remedies; many illustrations in black and colors being used where helpful in explaining the text.

The service rendered by this work, giving the year's progress in Medicine and Surgery so conveniently and at so low a price (\$2.75), cannot be overestimated.

Altogether it makes a most desirable, if not an absolutely necessary, investment for the practitioner.

The "American Text Book of Surgery," edited by Professors Keen and White, of Philadelphia, which has only been issued a few months, is already a phenomenal success. It has been adopted as a "Text Book" by forty-nine of our leading Medical Colleges and Universities. Nearly five thousand copies have been placed in physicians' libraries, and every indication points to a sale of at least as many copies more in the next six months.

Dr. Nicholas Senn, of Chicago, is now preparing a "Syllabus of Lectures on the Practice of Surgery," arranged in conformity with the "American Text Book of Surgery," which will be a valuable aid to all who have this great book.

**Moullin's Treatise on Surgery.**—P. Blakiston, Son & Co. made the following announcement with the advent of the New Year: Early last summer we were fortunate in securing the services of Dr. JOHN B. HAMILTON, formerly Surgeon-General of the Marine Hospital Service, now Professor of Surgery at Rush Medical College, Chicago, as editor for a new edition of Moullin's Treatise on Surgery. He has now almost completed his work, and within a short time we expect to place before you the book, generally revised so as to represent Sur-

gery as it is to-day, with a number of new and beautifully colored illustrations printed in with the text.

**The Anatomy of the Peritonæum** is the title of a little work issued by D. Appleton and Company, of New York. The author, Dr. Franklin Dexter, has rendered both students and physicians a real service in writing this clear and simple *exposé* of an anatomical subject which is so little understood. There are eighty-six pages of text, explanatory of the thirty-eight illustrations which are given. The method adopted by the author is certainly the most rational as well as most easily understood. He studies the development of the peritoneum, step by step, and thus enables his reader to follow the entire subject in a manner which is not only lucid but profitable. Not only will this opusculé prove of service to the learner, but it can be studied with profit by the teacher, who will thus be enabled to glean information as to the best manner of instructing others on this subject. The price of publication is \$1.50.

**Diseases of the Eye, Ear, Throat and Nose**, by Drs. James P. McEvoy and John E. Weeks, are considered in a small book of 218 pages, profusely illustrated. This forms one of the numbers of the Students' Quiz Series issued by Lea Brothers & Co., of Philadelphia, at \$1.00 per volume. The essentials of the above subject have been very happily condensed in the volume before us by men who are competent to do this work, by reason of practical training in the treatment of these affections. The entire matter constitutes, in addition, a trustworthy digest of the best and latest works on these specialties.

**Books Received.**—The following books have been received and will be reviewed in the JOURNAL:

**A Treatise on Nervous and Mental Diseases, for Students and Practitioners of Medicine**, by Landon Carter Gray, M. D. 8vo., pp. 687. With one hundred and sixty-eight Illustrations. [Philadelphia: Lea Brothers & Co. 1892.]

**Mother and Child. Part I. Mother**, by Edward P. Davis, A. M., M. D. **Part II. Child**, by John M. Keating, M. D., LL.D. 8vo. pp. 472. [Philadelphia: J. B. Lippincott Company, 1893. Price, \$2.50.]

**A Manual of the Practice of Medicine, Prepared Especially for Students**, by A. A. Stevens, A. M., M. D. 12mo., pp. 501. Illustrated. [Philadelphia: W. B. Saunders, 1893. Price, \$2.50.]

**Anatomy. A Manual for Students and Practitioners**, by Fred J. Brockway, M. D., and A. O'Malley, M. D. The Students' Quiz Series. 12mo., pp. 376. [Philadelphia: Lea Brothers & Co., 1892. Price, \$1.75.]

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## Original Communications.

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**CLINICAL LECTURES ON YELLOW FEVER.\*** By JOSEPH JONES, M. D, LL. D., of New Orleans, Louisiana. Professor of Chemistry and Clinical Medicine, Tulane University, of Louisiana.

**LECTURE 1. GENERAL OBSERVATIONS ON THE HISTORY AND SYMPTOMS OF YELLOW FEVER.\***

Gentlemen—My course of clinical lectures for the session 1892-1893 would be incomplete without some general and practical observation from an extended experience upon yellow fever. While we have had no epidemic of yellow fever in New Orleans since 1878, and experienced only a local and circumscribed outbreak in 1879, nevertheless this disease presents great abiding interest to all the inhabitants of insular and continental America.

The importance of our present inquiry is well shown here :  
**THE DESTRUCTIVE EFFECT OCCASIONED BY YELLOW FEVER AND  
THE MORE FATAL DISEASES IN NEW ORLEANS, LOUISIANA.**

The relative position held by yellow fever with reference to the importance and fatality on various diseases, will be illustrated by the following tables.

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\*Delivered in the Amphitheatre of the Charity Hospital of New Orleans, (1892-1893). (Reported for the ST. LOUIS MEDICAL AND SURGICAL JOURNAL.)

**TOTAL NUMBER OF CASES AND DEATHS OF THE VARIOUS FORMS OF  
FEVER TREATED IN THE CHARITY HOSPITAL, OF NEW  
ORLEANS, DURING A PERIOD OF THIRTY-SIX  
YEARS, 1844-1880.**

Diseases.	Total Cases.	Total Deaths.	Per Cent.
Yellow Fever.....	19,233	9,667	52.2
Typhus Fever.....	7,222	1,303	18.0
Typhoid Fever.....	3,521	1,163	38.0
Dengue Fever.....	636		
Nervous Fever.....	51	13	25.4
Adynamic or Ataxic Fever.....	27	4	14.9
Ephemeral Fever.....	563		
Continued Fever.....	1,099	88	8.0
Catarrhal Fever.....	111	1	0.8
Gastric Fever.....	113	3	2.7
Remittent Fever.....	15,361	311	2.0
Intermittent Fever.....	75,670	128	0.1
Congestive Fever.....	1,218	699	57.3
Pernicious Fever.....	478	320	66.9
Malarial Fever.....	6,251	636	10.1
Malarial Poisoning.....	431	50	11.6
Malarial Cachexia.....	95	8	8.4
Typho Malarial Fever.....	117	67	47.8
Other Fevers.....	135	20	14.8
<b>Total All Diseases.....</b>	<b>304,218</b>	<b>43,718</b>	<b>14.3</b>

During a period of thirty-eight years, 1842-1880, 19,233 cases of yellow fever were treated in the Charity Hospital, of New Orleans; of which 9,667, 50.2 per cent, terminated fatally.

During the same period, including yellow fever, 132,322 cases, with 15,480 deaths, of the various forms of fever were treated in the Charity Hospital. If the cost of treatment of each case to the State be placed at the low figure of \$20.00, then Louisiana expended during those thirty-eight years, \$2,646,440 for the treatment of fevers alone.

Whilst yellow fever numbered but 19,233 cases out of a grand total of 304,213 cases of all fevers, it caused 9,667 deaths, out of a total 43,718 deaths from all fevers during thirty-four years in the Charity Hospital, of New Orleans.

DEATHS FROM THE VARIOUS FORMS OF FEVERS IN THE CITY OF  
NEW ORLEANS DURING A PERIOD OF THIRTY-SIX YEARS,  
1844-1880.

Diseases.	Deaths during 36 years, 1844-1880.
Small-Pox and Varioloid.....	5,726
Measles.....	1,589
Scarlatina.....	2,066
Dengue.....	21
Typhus Fever.....	1,423
Cerebro-Spinal Fever.....	371
Enteric or Typhoid Fever.....	8,720
Simple Continued Fever.....	407
Yellow Fever.....	28,739
Gastric Fever.....	19
Malarial Fever.....	
Malarial Fever, Intermittent.....	921
Malarial Fever, Remittent.....	1,299
Malarial Fever, Congestive.....	6,337
Malarial Fever, Typho-Malarial.....	93
Malarial, Unclassified.....	3,747
Total.....	56,478

During a period of thirty-six years, (1844-1880), the following diseases caused the number of deaths specified in New Orleans :

Diseases.	Deaths during 36 years
Cholera.....	11,847
Cholera Morbus.....	889
Cholera Infantum.....	2,408
Total.....	15,144
Enteritis.....	6,915
Diarrhoea.....	8,239
Dysentery.....	7,097
Total.....	22,301

Deaths from phthisis pulmonalis, in New Orleans, during thirty-six years, 1844-1880, 24,071.

Total deaths in New Orleans during thirty-six years, 1844-1880, from all cases, 242,426.

While fevers of all varieties destroyed in the city of New Orleans 56,478 citizens in thirty-four years, yellow fever destroyed only one-half of the number, namely, 28,739.

If these fevers be divided into separate groups the mortality will stand thus ·

Total deaths from Small-Pox, Measles and Scarlet Fever during thirty-six years.....	9,381
Total deaths from Dengue, Typhus Fever, Cerebro-Spinal Fever and Simple Continued Fever.....	5,942
Total deaths from Yellow Fever.....	23,739
Total deaths from the various forms of Malarial Fever.....	12,413

The deaths from the various fevers and malarial fever, indigenous to the soil or common to all parts of the great valley of the Mississippi were very nearly half as numerous as those caused by yellow fever : congestive fever alone caused 6,337 deaths.

It is well established by the records of medicine, extending back over 2,000 years, that drainage and agriculture are the great and only absolute and certain means of destroying the cause of malarial fever.

If the value of a citizen in the State be rated at \$1,000, then the city of New Orleans has lost during thirty-six years, \$56,478,000 by fever alone ; other diseases, however, whose existence and propagation are largely dependent upon defective drainage have been busy in their work of destruction. Thus, during the thirty-four years specified, phthisis pulmonalis destroyed nearly as many citizens as yellow fever, namely, 24,071 ; enteritis, dysentery and diarrhoea, 22,301, and cholera, cholera morbus and cholera infantum, 15,144 ; total from phthisis and bowel affections 61,616 deaths.

Those diseases which are common to the entire valley caused 61,616 deaths, exceeding those by fevers, 5,138.

Without doubt a large proportion of the deaths from phthisis pulmonalis and bowel affections are preventable or directly referable to defective drainage. Thus, general affections and phthisis pulmonalis alone caused New Orleans 118,099 deaths in thirty-four years, out of a total of deaths from all causes of 242,426.

We may therefore affirm that nearly one-half the deaths in New Orleans during the past thirty-four years (118,095) were caused by preventable diseases, the important sanitary measure for the diminution of the same being *effective drainage*.

From these diseases, New Orleans has lost in thirty-six years, \$118,094,000.

No city in the world has suffered more obloquy than New Orleans in reputation for health, and more especially in regard to its epidemics of yellow fever.

If, by the application of all the facts known to science, the sanitary condition of New Orleans can be so improved as to exclude yellow fever, or to arrest it in its first beginnings, it is not unreasonable to believe, when we consider the extent and extraordinary fertility of the basins of the Mississippi and the Missouri, that New Orleans is destined to become the greatest emporium, not of America only, but of the world.

MEASURES FOR THE PREVENTION AND EXTINCTION OF YELLOW FEVER.

The measures for the exclusion, prevention and arrest of yellow fever, may be divided into three divisions:

- 1°. Local sanitation.
- 2°. Sanitation of all public conveyances, including ships and railroads.
- 3°. Quarantine.

The absence of yellow fever from New Orleans during 1880, 1881, 1882, 1883-1892, would support the theory that this disease is not indigenous to the locality.

If yellow fever be not indigenous to New Orleans, its exclusion depends upon a rigid quarantine.

When introduced, the health authorities should be provided with sufficient men and means to counteract the disease, and to thoroughly disinfect and cleanse every form of disease, as was done in 1882 successfully by the Board of Health of the State of Louisiana in the third district, in the cases of Forbes, Stroh, England.

The great difficulty rests in the prompt recognition and immediate report of the first case or cases. Correct diagnosis is of infinite importance. In order to present a basis of discussion, and if possible, agreements amongst the profession, I present the following statements of the results of my original investigations during the past thirty years.

GENERAL OUTLINE OF THE SYMPTOMS AND PATHOLOGICAL  
ANATOMY OF YELLOW FEVER.

YELLOW FEVER DEFINITION.

A pestilential fever of continuous and specific type originally developed in tropical and insular America, confined to definite geographical limits and dependent in its origin and spread upon definite degrees of temperature, and capable of transportation and propagation in ships, or in towns and cities. In those portions of North and South America, which lie between 45° North Lat., and 35° South Lat., the disease has been limited chiefly to the coast of tropical Africa, rather from the number and position of the commercial towns, than from any climatic causes adverse to its propagation elsewhere. It has been imported from the Antilles, and from the shores of the Gulf of Mexico, and from Tropical America, far into the interior of the Valley of the Mississippi, from New Orleans to St. Louis, and along the Atlantic Coast, from St. Augustine, Florida, to Portland, Maine, and run across the Atlantic Ocean to Cadiz, Carthage, Barcelona, Gibraltar, Lisbon, St. Varzane, to Plymouth and to South Hampton, England.

YELLOW FEVER PRESENTS TWO WELL DEFINED STAGES.

THE FIRST STAGE OF YELLOW FEVER is characterized by intense pains in the head and back, injected eyes, rapid circulation, and elevated temperature, which may extend from 24 to 160 hours, according to the severity of the disease.

THE SECOND STAGE OF YELLOW FEVER is characterized by depression of the nerves and muscular forces, and of the general and capillary circulations, capillary congestions, slow and intermittent pulse, jaundice, urinary suppression, passive hæmorrhages from the stomach and bowels, gums, nose, tongue, uterus, vagina, gall bladder and anus; and in extreme cases, from the eyes, ears and skin; black vomits, convulsions, delirium and coma.

IN THE FIRST STAGE OR STHENIC FORM OF YELLOW FEVER

The capillary congestion of the face and eyes is well shown, and upon first view the case might be mistaken for one of an eruptive disease, as scarlet fever.

We do not intend to convey the impression that the intense capillary congestion here depicted is present in every case of

yellow fever; on the contrary we have, especially in New Orleans, great variations in the severity and duration of the febrile stage and corresponding variations in the degrees of congestion of the superficial capillaries.

As a rule unacclimated individuals who have recently come from elevated non-malarious and cold regions, present the greatest degree of congestion of the superficial capillaries, whilst the natives present the slightest degree and the faintest blush during the febrile stage.

Deep redness of the surface and great capillary congestion during the first stage of febrile excitement indicate great danger.

In yellow fever, as far as my observations extend, the more robust the patient and the "RICHER THE blood," the higher will the "*fermentation*" excited by the yellow fever poison rise; the elevation of temperature, the intensity of the capillary congestion and rapidity of the pathological changes will be correspondingly marked.

The pre-existence of malarial fever in the natives appears to moderate the scourge of the action of the yellow fever poison in many cases, although it does not finally eradicate the subsequent effects of the former.

IN THE SECOND STAGE, the brilliant hue of the surface gives place to a mottled dusky and bronzed and deep yellow hue.

In this stage the capillaries of the surface are still congested, but the movement of the peripheral circulation is sluggish, and the blood has lost its brilliant hue.

The presence of jaundice is also indicated. These illustrations are similar to those of Pariset and Mazete in the yellow fever of Cadiz in 1819.

In its origin and propagation yellow fever is not dependent upon those conditions and causes which generate malarial paroxysmal fever, in which it differs essentially in symptoms and pathology.

One of the prominent symptoms of the first stage is the rapid increase of the pulse within the first few hours of the febrile excitement, and the progressive diminution of the beats of the heart even while the temperature progressively rises; and in like manner the slow and feeble action of the heart constitutes a prominent and striking symptom of the second stage.

Yellow fever, in common with such contagious diseases as small pox, measles and scarlet fever, occurs as a general rule, but once during life, and may be propagated by contagion ; it differs, however, from the exanthematous diseases, in that it has never been known to propagate beyond 48°, N. Lat. ; nor originate below a temperature of 70°, F.

I will now briefly present the general conclusions as to the nature of yellow fever, which I have drawn from my original investigations during the past thirty years ; during this period I have at various times and in different journals published cases sustaining the conclusions, and I have also in my possession in manuscript the details of a large number of careful chemical and microscopical investigations, and numerous cases illustrating the symptoms and pathological anatomy of yellow fever.

GENERAL CONCLUSIONS AS TO THE NATURE OF YELLOW FEVER,  
DRAWN FROM ORIGINAL INVESTIGATIONS.

1. Yellow Fever is a continued pestilential fever presenting two well defined stages, the first characterized by active chemical change in the blood and organs, attended with elevation of temperature, by aberration of nervous action, which may constitute the entire malady, and prove fatal in a similar manner to the infectious form of small pox ; and the other a stage of depression, induced both by the sedative action of the febrile poison, and by profound changes excited in the blood, and in certain organs, as follows: the heart, liver and kidney, and by the direct sedative and poisonous action of the excrementitious matter retained in the blood in consequence of the failure, arrest or perversion of the functions of the liver and kidneys, and by the arrest or perversion of the digestive function, in consequence of the action of the yellow fever poison, in causing perverted nervous action, capillary congestion, and active desquamation of the secretory cells of the stomach, and in consequence of the elimination by the gastric mucous membrane, of certain constituents of the blood and urine, namely, urea and carbonate of ammonia.

The action of the yellow fever poison is the same in all cases, whether mild or severe ; the progress and termination of the case, as well as the manifestation of the various symptoms, depend upon the extent of the action of the poison, the

condition of the system at the time of its introduction, the peculiarities of the constitution, and the supervention of other diseased states.

The action of the yellow fever poison is definite, and the disease is characterized by definite manifestations.

Yellow fever is a self-limited disease.

II. The changes of the blood appear to be continuous from the time of the introduction of the poison to the fatal termination; the intensity of the changes being increased, and their character being modified as the disease advances, not only by the direct action on the constituents of the blood of the poison, but also by the addition of certain noxious substances, as bile, urea, carbonate of ammonia, sulphates, phosphates, and extractive matters in consequence of the profound lesions produced in the kidneys and liver.

Certain constituents of the blood, as the albumen and febrin, are not only altered physically and chemically in the early stages of yellow fever, but as the disease advances from the causes first specified, certain excrementitious matters, which in a state of health are continuously eliminated, accumulate in the circulating fluid, and by their direct action upon the elements of the blood and upon the nervous system, and by their disturbing action on the processes of nutrition and digestion, still further alter the physical and chemical and vital properties of this fluid.

The blood of yellow fever patients, under the microscope, differs essentially from that of malarial fever patients; in the former disease, the blood corpuscle rapidly assumes a crenated, with minute transudations upon the surface. In some cases of yellow fever the blood contains small particles possessing a vibratory motion.

I have observed bacteria and the filaments of a delicate fungus in the blood of yellow fever patients. Blood from yellow fever patients has been allowed to stand, and the development of the micrococci, bacteria and fungi watched. I have also diluted the yellow fever blood and added sugar and other materials and observed the development of living organisms.

We desire lastly to extend these researches, before formu-

lating definitely the observations on the micro-organisms of yellow fever blood.

#### EXPERIMENTS WITH THE BLOOD OF YELLOW FEVER.

If fresh blood from a yellow fever patient be injected into an animal, it will produce fever, which, as a general rule, is not fatal.

If, however, the blood be abstracted from the dead subject, or if after abstracting it from the living subject it be allowed to stand for a short time, say two or three hours, it proves rapidly fatal to animals, even when injected under the skin. These experiments were performed in 1870, 1873, 1878, 1880, 1882.

Many of the animals into whom small quantities of yellow fever blood and black vomit had been injected, died on the first, second, third, fourth or fifth day in convulsions. A beautiful black-and-tan terrier, into whom I injected a small quantity of the blood of John Forbes (1882), was seized with violent delirium, the animal rushing about and barking, and striking its head violently against obstacles. The animal died in tetanic convulsions on the fifth day.

#### BLACK VOMIT OF YELLOW FEVER.

Fresh *black vomit* introduced subcutaneously acts as a local irritant and alone produces fever. If black vomit be taken from the stomach of a dead man, or if that from a living person be allowed to undergo putrefactive change, it destroys in a few hours the life of an animal to which it has been administered under the skin.

The black vomit, a short time after ejection, in many cases, becomes filled with forms of vegetable or animal life, such as the spores and thalli of *torulæ*, the organized bodies found in yeast and other fermenting liquors, and also various forms of bacteria.

I have noted as characteristic of the secretions and excretions of yellow fever, an exceedingly delicate fungus, which is evidently a species of the plant which produces fermentation in tar and sugar.

The appearance presented by the black vomit of yellow fever (1876), magnified 450 diameters, is represented in Figure 20; Figure 21, Fungus developed in surface of black vomit,

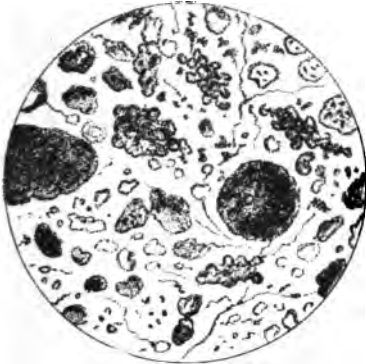


FIGURE 20.

Black Vomitus of Yellow Fever, 1876.  
450 Diameters.

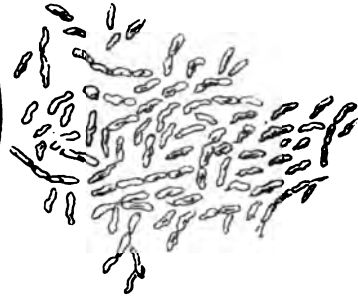


FIGURE 21.

Fungus developed on surface of Black Vomitus, 1876. 450 Diameters.

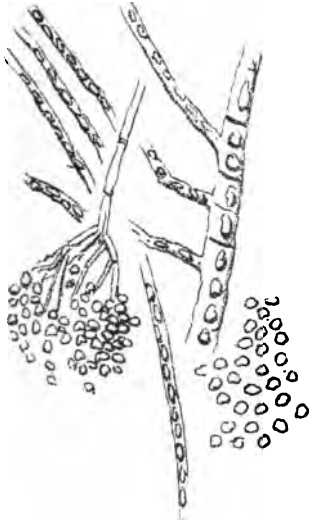


FIGURE 22.

Fungus developed in Black Vomitus  
of Yellow Fever, 1876.  
450 Diameters



FIGURE 23.

Black Vomitus of William Dwyer; died of  
Yellow Fever, Sept. 15, 1878.  
 $\frac{1}{2}$  Objective.



450 diameters. Figure 22, Fungus developed in yellow fever, black vomit, 450 diameters. Figure 23, Black vomit of Wm. Dwyer, died of yellow fever, New Orleans, Sep. 15, 1878;  $\frac{1}{4}$  objective.

Figure 24, Black vomit of James Kenney, of Bark Excelsior, died in Waco Infirmary, New Orleans, of yellow fever, July 10, 1880. Figure 25, Fungus developed in black vomit of yellow fever, 1873, similiar fungus observed in black vomit, 1870, 1, 2, 3, 4, 5, 6 and 80.

In a case of yellow fever attacked in New Orleans, September 8, 1878, attended with high temperature, jaundice, urinary suppression and black vomit, the blood abstracted on September 8, at 4 P. M., when the pulse was 70 and the temperature of the axilla  $104.8^{\circ}$ , presented the following characteristics:

After abstraction the blood rapidly assumed a brilliant scarlet hue, like the blood of those who have been poisoned by carbonic oxide gas or cyanide of potassium. The blood was tested for hydrocyanic acid, after its removal to the laboratory, but no trace of this poison could be detected. Under the microscope the colored blood corpuscles presented a crenated appearance, and minute oval bodies with a central nucleus similar in size and appearance to those observed in the yellow fever *atmosphere*, were found. I also observed rod-shaped bacteria and delicate thread-like filaments, resembling the mycelia of minute fungi. The minute particles of matter, pursuing an active vibrating motion, observed in this and other specimens of the blood of yellow fever patients during 1878, may have been examples of the Brunonian movements.

The vibrating motion of minute particles may be associated with inorganic matter, as well as organic. But from the number of these particles observed in the blood of yellow fever patients during the epidemic of 1878, I was inclined to refer that existence in part at least to the pathological processes of the disease.

The blood was received carefully into a glass-stoppered bottle, and examined microscopically at various intervals, and there was rapid and progressive growth of the bacteria, and rotatoria and minute vibrating particles. On the third day after its abstraction and preservation in the glass-stoppered bottle, the blood literally swarmed with the rod-like bacteria and ro-

tatoria. When the blood, thus undergoing change, was twenty-two hours after its abstraction, injected subcutaneously into the ear and back of a large and powerful *buck rabbit*, death ensued in twelve hours. Putrefaction was rapid, and the coagulated blood which distended the cavities of the heart and the animal was found upon microscopical examination to contain similar rod-shaped bacteria and *rotatoria*, to those observed in the blood of yellow fever subjects. The few drops of putrid yellow fever blood injected subcutaneously, appear to have conveyed to the living and healthy animal, a deadly poison, and one of the most marked effects of such putrid blood, was the rapid generation in the blood of bacteria.

At the same time, September 9, 1878, I injected subcutaneously into two healthy rabbits, fresh yellow fever blood from another patient, who was suffering with a violent fever, which subsequently terminated in black vomit and death. One of the animals survived the operation, while the other died on the fourth day after the operation. September 11, 5 A. M., thirteen hours before death, this patient threw up black vomit and passed large quantities from the bowels.

The black vomit was carried immediately from his sick chamber (this specimen was vomited in my presence), to my laboratory, and injected subcutaneously into two strong rabbits. Local irritation with the formation of pus in the neighborhood of this injection, attended with fever, ensued in both animals, but they survived the operation. On the other hand, black vomit kept for some time (24 to 48 hours), which emitted a foul smell and swarmed with bacteria, as well as the putrid black vomit taken from the stomach of patients after death from yellow fever, destroyed the rabbit when injected subcutaneously in from twelve to eighteen hours.

In a case of yellow fever, J. R., male, age thirty years, native of Germany, attacked in New Orleans with yellow fever at 2 P. M., August 27, 1878, attended with high temperature, 106° F., wild delirium, urinary suppression, the blood abstracted August 29, at 9 A. M. (when the pulse was 98 and the temperature 105° F., having been the evening previous 106° F.) presented the following appearance: Upon standing, the blood abstracted showed a brilliant scarlet hue, the clots were small and soft and rapidly dissolved. The blood then



FIGURE 24.

**Black Vomit of James Kenney, of Bark Excelsior. Died in Town Infirmary, New Orleans, with Yellow Fever, July 10, 1860.**



FIGURE 25.

**Fungus developed in Black Vomit of Yellow Fever.**

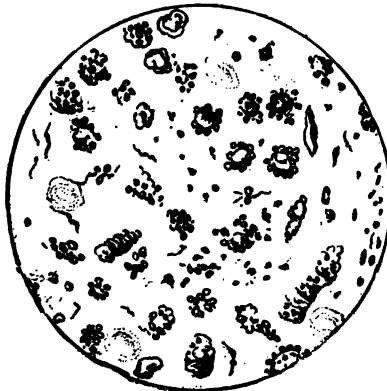


FIGURE 26.

**Blood of Yellow Fever. Wm. Dwyer, Sept. 14, 1878.  
450 Diameters.**



FIGURE 27.

**Putrid blood of W. Dwyer, Sept. 28, 1878.  
450 Diameters.**



became entirely fluid, a short time after its abstraction, by a dissolution of the fibrin. The serum at first presented a bright golden color that rapidly changed to a scarlet hue from the vibration of the coloring matter of the colored corpuscles.

Many of the colored blood corpuscles presented under low powers (400 to 600 diameters) a crenated and granular appearance. Under higher powers,  $\frac{1}{8}$  of an inch, the peculiar crenated appearance of the colored corpuscles was found to be due to irregular elevations or exudations on the surface of the corpuscles. Many of the colored and colorless corpuscles, when magnified 1800 diameters, presented a distinctly granulated appearance, wholly unlike the condition of those constituents in healthy blood.

The blood also contained minute vibratory particles, varying from  $\frac{1}{10,000}$  to  $\frac{1}{18,000}$  of an inch in diameter. It would appear that the bacteria are more numerous in the blood at a late stage. Subcutaneous injection of this blood into rabbits was not attended by fatal results.

The fresh urine passed by this patient on the 31st of August, at 8 A. M., was of a light yellow color, and contained a small quantity of albumen, with a few *granular casts* of the tubuli uriniferi, and epithelial cells of the urinary tubes, oil globules, bacteria and granular matter.

Immediately after arriving at my laboratory I injected two fluid drachms of this fresh urine (passed in my presence) subcutaneously into the backs and thighs of healthy buck rabbits. After the injection of the urine the lower extremities were paralyzed for a few moments, but the animals were not to any perceptible degree affected by the injection of the urine, and survived the operation.

In a case of yellow fever, William Dwyer, of Ireland, age 27, attacked with yellow fever in New Orleans, 8 A. M., September 11, 1878, attended with high temperature (106° F.) urinary suppression and black vomit; the blood abstracted on the 14th of September, 1878, presented the following appearance:

The blood upon exposure to the atmosphere presented a brilliant scarlet color. I hastened to my laboratory with the blood of this patient, which had been received into chemically clean glass-stoppered bottles, and which had never been used

before, and subjected the blood to microscopic examination.

The colored blood corpuscles presented a stellate and granular appearance, as if minute globules were forming upon the surface of each cell membrane, or outer coating. I also detected bacteria and small globular bodies, with nuclei, and rotating and vibrating globules, apparently surrounded with ciliæ in the blood of this patient, which were similar to those observed in the yellow fever air.

In figure 26, I have reproduced a sketch which I made of the blood of this patient, William Dwyer. The blood here figured had not been abstracted two hours when the discovery was made. Some of the bacteria bore a surprising resemblance to bacillus anthracis of splenic fever, others spirochææ organisms of relapsing fever, the cells resembling those of micrococcus bornhycis, and of micrococcus ureæ and torulæ. The delicate filaments appeared to be similar to those of cladothrix dichtoma.

When the blood was allowed to stand in well stoppered bottles it was found upon the succeeding day that these organisms had greatly multiplied.

The fresh blood injected into living animals, produced no fatal effects, whilst the blood at the end of twenty-four hours, injected in the same manner, proved rapidly fatal. Portions of the blood were placed in glass vessels, the mouths of which were carefully stopped with cotton wool. The following experiments were made:

1. Simple Blood.—At the end of one week all the colored blood corpuscles had disappeared, and an immense number of bacteria had been developed, many of which resembled in form, human spermatozooids having a distinct cell, with a tail-like prolongation. None appeared to be similar to the bacillus subtilis, with spores at one end. I also observed micrococci, vibrios, spirochætæ and spirillæ.

The appearance of the putrid blood of the man, William Dwyer, is represented in Figure No. 27.

The blood of John Parkes, who died of yellow fever in 1882, in New Orleans, presented the same organisms, after standing for two or three days, the colored blood corpuscles having disappeared. The appearance of the putrid blood of John Parkes is represented in Figure 28, 450 diameters.

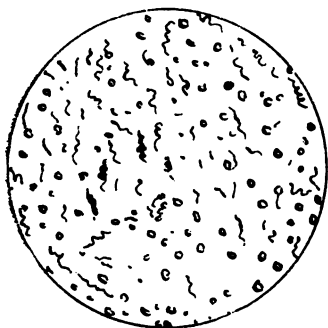


FIGURE 28.  
Putrid Yellow Fever blood, 1882.  
450 Diameters.

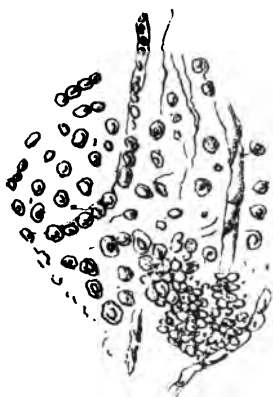


FIGURE 30.  
Yellow Fever blood, mixed with  
solution of white crystallized  
sugar. 450 Diameters.



FIGURE 33.  
Putrid bile of Yellow Fever, 1878.  
450 Diameters.



FIGURE 29.  
Yellow Fever blood, 1878, mixed  
with water. 450 Diameters.



FIGURE 31.  
Yellow Fever blood mixed  
with lime water, 1878. 450  
Diameters.



FIGURE 32.  
Putrid blood of Yellow Fever, 1878.  
450 Diameters.



FIGURE 34.  
Putrid Yellow Fever tissue, 1878.  
450 Diameters.



2. Yellow Fever Blood Mixed with Water.—One part of yellow fever blood was mixed with about ten parts of distilled water. At the end of a few days the colored blood corpuscles disappeared, and numerous bacteria resembling closely bacillus anthracis, bacterium termo, and spirillum tenue, and micrococci appeared. The microscopical appearances of the blood thus treated are represented in Figure 29.

3. Blood Mixed with a Solution of Crystallized White Sugar.—At the end of a week a distinct fungoid mass with a deep yellow surface, had formed upon the fur surface of the yellow fever blood mixed with a solution of crystallized sugar.

Under the microscope, the fungus resembled the aspergillus glaucus. The spores varied in diameter from  $\frac{1}{1000}$  to  $\frac{1}{800}$  of an inch in diameter. The sporiferous stems with spores, the sporangium, mycelium, and zoospores were well developed. The appearance of the fungus developed in the yellow fever blood of William Dwyer, treated with a solution of white sugar, is represented in Figure 30.

4. Blood of Yellow Fever Mixed with Lime Water.—At the end of a week, numerous bacteria and delicate elongated dichotome threads had formed. Figure 31 represents the microscopical appearance of the yellow fever blood treated with lime water.

Figure 32 represents the appearance of the putrid blood of other cases of yellow fever, observed during the epidemic, 1878.

Figure 33, appearance presented with the microscope of putrid bile of yellow fever subjects, 1878.

Figure 34; microscopical organisms in putrid yellow fever from 1878, magnified 450 diameters.

III. The maximum elevation of temperature is rapidly attained upon the first and second days of the disease, varying according to the severity of the attack, from 102 to 110° F. on the axilla, and as a general rule from the third to the fifth day steadily falling and sinking down to the normal standard, even below; in some fatal cases it rises again toward the end, rarely, however, reaching or exceeding 106° F., and only in certain rare instances, attaining the high degree of temperature characteristic of the stage of active febrile excitement. We have recorded in the epidemic of 1878, a case in which

the temperature rose suddenly on the fifth day from 101.7° F., to 111° F.; in another case 106.8° on the fourth day; in case 96, the temperature was 107.5° on the sixth day; in case 105, 105° on the fourth day; in case 122, 107.2° on ninth day; case 133, 107° on third day; case 146, 109° on sixth day; case 154, 111.1° on ninth day; case 168, 108.2° on ninth day.

The supervention of an inflammatory disease, or the occurrence of an abscess, or the access of paroxysmal malarial fever, may in like manner cause the progressive elevation of temperature, with coming exceptions. The pulse at the commencement of the attack is often rapid and full.

The increase in the frequency of the pulse does not, however, as a general rule continue to correspond with the elevations and oscillations of temperature, as in many other febrile diseases; and in many cases of yellow fever, the remarkable phenomenon is witnessed of the pulse progressively decreasing in frequency, and even descending below the normal standard, while the temperature is maintained at an elevated degree; and, on the other hand, the pulse often increases in frequency, but diminishes in force near the fatal issue; the increase of copious hæmorrhage from the stomach and bowels may be attended with sudden depression of temperature, and increase in frequency, but diminution in the force and fullness of the pulse.

The cause of the rapid rise and declension of the temperature in yellow fever must be sought chiefly in the changes induced in the blood, and in the organs upon which the circulation and integrity of the blood depends; neither the rapid rise nor the sudden declension of the temperature can be referred wholly to the effects of the yellow fever poison upon the nervous system.

IV. The fever of the first stage of yellow fever like fever in general, however caused, consists essentially in elevation of temperature, arising from the increased chemical changes in the blood and tissues, and is attended with changes in the physical and chemical constituents of the blood, and abnormal nervous action.

As long as the skin, kidneys, lungs and gastro-intestinal canal perform their functions this stage is characterized, as in other fevers, by an increase in the amount of solids excreted.

But this increased elimination of the products of chemical change is not, in yellow fever, a constant concomitant of the increased temperature.

Not only are large quantities of the products of oxidation formed during the hot stage of yellow fever, but as we have shown by numerous analyses of the blood, black vomit, urine, brain, heart, liver, spleen and kidneys in this disease, they alter to a certain extent from their characteristic state of health; albumen of the blood under the action of the poison being transformed into nitrogenous and non-nitrogenous compounds, a portion of which as the fatty matter and altered fibrin, being arrested or accumulated in certain organs, as the heart, liver and kidneys.

The peculiar phenomena of yellow fever, like those of acute morphine poisoning, are due to the nature of these changes, which it is capable of exciting, primarily in the blood and secondarily in the nervous and vascular system, and in the nutrition of the various organs.

Neither the rapid rise nor the sudden declension of the temperature in yellow fever is necessarily referable solely to the effects of the poison in the nervous system, because, in the first place, the changes of the blood are amongst the first manifestations of diseased action; and the progress of extermination of each case is largely dependent upon the extent of character of the changes of the blood, and the degree of the elevation of the temperature, and in the second place, the sudden fall of the temperature, during the succeeding stage of calm, may be referred to the peculiarity of the self-limited chemical changes excited by the poison, and by the structural alterations induced in the muscular tissues of the heart, and in the liver and kidneys, and the sedative action of the bile, urea and other excrementitious products retained in the blood upon the nervous system; and, finally, in the third place, the changes of the blood and of the heart, liver and kidneys are of a definite physical and chemical nature, and could never be induced by a mere exaltation or depression of nervous action, and must be referred to the introduction and action of some agent or material, related in a definite manner in its constitutional and physical properties to the fluids and solids in which it induces these profound physical, chemical changes.

Without doubt the action of the yellow fever poison upon the nervous system may be of the most direct and important character; but well established facts do not justify us in locating the origin of the disease wholly in the action of the poison upon the nervous system, and the fact the earliest sensible manifestations of disordered nervous action, as evidenced by uneasiness, loss of appetite and chilly sensations, may be entirely secondary to the changes in the blood by which all parts of the nervous system are surrounded and supplied.

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CASE OF LUPUS OF THE NOSE. By D. W. MONTGOMERY, M. D., Professor of Diseases of the Skin and Syphilis, San Francisco Polyclinic; Professor of Pathology and Clinician for Diseases of the Skin, Medical Department of the University of California.

The following case is a good example of the difficulty sometimes experienced in trying to get to the bottom of things, and also of the deceptiveness of symptoms in which we are accustomed to place great faith.

On March 22, 1892, Carl P., aged 42, a Silesian by birth, came to my department of the San Francisco Polyclinic. There was a scar on the left side of the penis just behind the corona, where he said he had had a sore sixteen years before while staying in St. Petersburg. There was then a small bubo, but no secondaries, and he had been treated antisypilitically by a reputable physician there. He said he suffered yet at times from some irritation of the glans, and of the inner surface of the prepuce. He then went on to say that four months ago he had noticed two red pimples on the right ala of the nose, where there were now two rather deep ulcers, with punched-out steep edges, and a dirty, grey purulent floor, the one ulcer being circular, and the other oblong. They were not painful, and there were no foci of disease in the neighborhood. The patient was a rather undersized, not very well nourished individual, but there were no other symptoms of disease about him. During the time he was under my care, the lungs, throat, heart and urine were examined with negative results.

In the diagnosis of chronic ulcerating lesions of the face we

think of tuberculosis—of which lupus is now considered a sub-variety—epithelioma, syphilis, leprosy, some hybrid forms of syphilis and tuberculosis, of cancer and syphilis, and also, since the publication of Besnier's case,<sup>1</sup> chronic perforating farcy.

The patient was forty-two years, old, and lupus only rarely develops after the age of boyhood or girlhood. The presence of two ulcers situated on the nose, sharply circumscribed, punched out, with dirty floors, and rapidly breaking down, together with a history of syphilis made an almost un-rebuttable case. Although the patient said the trouble commenced four months before, it looked as if more recent, and the further history of the case showed we were at any rate correct in our estimate of its rapidity. Now, the time difference is very important between lupus and syphilis, both as a diagnostic feature and in regard to treatment. It is well known that syphilis will take a wing off a nose, destroy an eyelid, or knock off an ear in a few days or weeks, lesions which it will take years for a lupus to accomplish. Therefore, one has to act quickly in the case of syphilis, while in lupus a leisurely demeanor is becoming. As Mauriac expresses it "gummy destruction occurs *en bloc* and brusquely, while lupus destroys molecule by molecule with an extreme slowness."<sup>2</sup> Then there were no "apple jelly" lupus tubercles found in the surrounding skin although they were carefully looked for. Epithelioma, in the form called rodent ulcer, is frequently met with in this part of the face, but it is a very slow affection, and there are almost always little yellow nodules of epithelium, with dilated capillaries running over them in the skin at the edge of the ulcer. In addition to this, two cancerous ulcers appearing at the same time and running along together would be a very rare occurrence. It did not at all resemble leprosy, and I have never had the good fortune to meet with any of the hybrid forms of syphilis and tuberculosis or of cancer and syphilis such as Leloir describes. Epithelioma can, of course, develop on a lupus base, but this is a very different thing from the two diseases starting in together and running along, neck and

<sup>1</sup> Chronic Perforating Farcy. By Ernest Besnier. International Atlas of Rare Skin Diseases, August 31, 1892.

<sup>2</sup> Syphilis Tertiaire et Syphilis Héréditaire par le Dr. Charles Mauriac, page 1181.

neck, to a finish. While having this case under treatment I did not know of glanders as a chronic perforating affection of the face, but its subsequent history and the results of examination showed conclusively that it was not an instance of that disease. All things, therefore, working together to the attainment of a positive diagnosis, iodide of potash in increasing doses, and mercurial ointment locally, were prescribed "in a sure and certain hope;" but the patient did not get well. The edges of the ulcers became tumefied, and in a short time a probe could be pushed from one to the other under a bridge of skin separating them superficially. By this time the fight became interesting, and the bridge of skin being useless, was cut out for microscopical examination. The sections showed distinct epithelial downgrowth and infiltration. But the piece of tissue was necessarily shallow, and the danger that it might have been cut somewhat diagonally was great, and besides, my clinical prejudices were too deeply rooted to give way before such pathological evidence, and I also remembered the maxim that where the pathologist and the clinician differ the pathologist must give way. And this is a perfectly fair proposition in the majority of cases, for the clinician must almost necessarily have a much greater number of facts to draw conclusions from than the pathologist.

The disease process not being controlled by the antisyphilitic treatment only caused me to increase the dosage of iodide of potash, for I had seen luetic ulcers of the nose act stubbornly before. In a short time, however, I was able to shove my probe unresistingly through the base of the ulcer into the nasal cavity. It was now clear that it was not syphilitic, for it had gone on unretarded while giving a vigorous anti-syphilitic treatment (about 120 grains of iodide of potash a day). It was evidently our duty now to cut out the ulcer well away from the margin, a proposition to which the patient readily acceded. Three weeks after first seeing the patient a large triangular piece was taken away with the scissors under cocaine, then the edges of the wound were approximated and sutured. Healing took place with the suspicious readiness of an operation for cancer, and because of a congenital redundancy of the tip of the nasal organ, the loss of substance was greatly to the patient's benefit cosmetically. Investigation of

the tissue removed confirmed the results of the previous examination. There was found epithelial infiltration, which I am yet, on looking over the specimens, unable to distinguish from epithelioma, and there was also a good deal of diffuse inflammatory infiltration of the connective tissue, which is also often present in cancer. I then set about hunting up the case in literature, but fruitlessly. The patient continued to visit the clinic, and towards the end of May a scab appeared on the scar, which on being removed showed two ulcers with almost the identical characteristics of the previous ones. I took out a much larger piece of tissue this time, the wound of operation healing as readily as the former had. On cutting through the piece of tissue it was found to be gelatinous in the center. I examined it again microscopically, and this time its true nature was disclosed. There were well formed tubercles with their epithelioid cells undergoing hyaline degeneration (coagulation necrosis), lying in the inflamed connective tissue. The whole case was now clear; it was an instance of what has been called *lupus vorax*. A lupus node had started deep in the tissues, and in approaching the surface two places had given way, forming two ulcers. Up to this point the progress of the disease had been comparatively slow, elucidating the patient's assertion that two pimples had appeared there four months before I saw him. But after ulceration the process became more and more rapid on account of the superinfection by pyogenic bacteria, and the irritation and destruction caused by them. The first operation was not extensive enough, but what before had been diffuse lupus infiltration, now, because of the irritation of an insufficient operation, took on a more active form, developing numerous distinct foci, so enabling one to recognize its true nature.

A microscopic examination enabled me to find lupus tubercles with their endothelioid cells, and Langhans' giant cells lying in a richly infiltrated tissue. Sections were repeatedly stained for tubercle bacilli with a negative result, and on the suggestion of Dr. Adolph Lutz, who was then spending a short time in San Francisco, for the *bacillus malleus*, also, with a negative result in both instances.

This case illustrates a point to which many pathologists

(Klebs,<sup>3</sup> Councilman, Karg) have referred, the downgrowth of epithelial cells owing to the development of granulomata, particularly lupus, in the subjacent connective tissue. Karg has recently reported a case of lupus with a microscopical photograph, where, in some parts of the field he was unable to exclude epithelioma histologically.<sup>4</sup> He does not, however, draw the conclusions that it was a case of the combined disease, as it simply indicates the tendency for epithelium to grow down into lupus tissue.

The patient continued to visit the clinic for a few weeks then was lost sight of like so many dispensary patients.

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GYNECOLOGICAL TECHNIQUES AS CARRIED OUT AT THE GYNECEAN HOSPITAL.\* By J. M. BALDY, M. D., Philadelphia, Pa.

It is no uncommon thing to have physicians from all over the country, who are making a temporary stay in Philadelphia, and who are visiting the hospital with the object of seeing operations, question minutely as to the different points in the preparation, and not infrequently express surprise at the simplicity of these. In fact, it has often occurred to me that many of our visitors are more interested in the preparation than in the operation itself. To one who has the success of this class of work at heart, this seems to be a step in the right direction, as it has long since been recognized by the successful operators of the world, that more good results are obtained by mediocre operators, whose preparations have been most careful and systematic, than by their more brilliant colleagues who have been inclined to scoff at minutiae and to depend upon their mechanical skill.

From time to time articles on this subject have appeared in medical print, giving the most elaborate description of the preparation and the apparatus used, most of which are undoubtedly excellent and well-fitted for the operating-room of a hospital, but which are unnecessarily cumbrous when one comes to apply them to private work. For this reason I have

(3) Die Allgemeine Pathologie. v. Edwin Klebs. Theil. II. Seite 769.

(4) Ueber das Carcinom. v. Dr. Med. C. Karg. Festschrift Herrn. Professor Dr. C. Thiersch. Seite 178.

\*Read before the Philadelphia County Medical Society, December 28, 1892.

been encouraged to enter upon a detailed description of our work at the Gynecean Hospital, the application of which can readily be carried into private practice. The watchwords from the beginning to the end of an operation are *thoroughness* and *simplicity*.

The aim of all successful operators is the same, namely—the prevention of any septic matter entering into the field of operation. Different operators adopt different methods accomplishing this object, but for success, the object and result must be the same, whatever the method adopted may be.

*Antisepsis* or *asepsis*, as fancy may dictate, the principle is the same. To be successful one must be surgically clean. For the proper accomplishment of this one must consider and treat: 1. The patient. 2. The operating-room and its paraphernalia, including tables, basins, pitchers, buckets, instruments, ligatures, sponges, dressings. 3. The operator, assistants, and nurses.

1. *The Patient*.—The preparation of the patient should begin, when possible, at least twenty-four hours before the operation. The first steps are to regulate the diet and empty the gastro-intestinal tract. Free purgation is begun at once, preferably by the use of some saline. This is usually administered in the dose of a drachm of sulphate of magnesia, dissolved in water each hour until the bowels begin to move. Usually five or six doses are sufficient to accomplish the object. The purgatives should be so administered that the action of the bowels ceases five or six hours before the time set for the operation. After beginning the administration of the purgative, the diet should be light and concentrated. If the operation is to be performed in the afternoon, the patient's supper on the day before consists of the ordinary house diet. From this time on nothing passes her lips, unless it be a glass of milk or a cup of bouillon at breakfast-time. Even water, except in small quantities, is withheld. These steps in the preparation can be carried out in the case of most patients, but in dealing with an unusually weak woman, considerable judgment must be used in their application. A hot bath is given, both the day before and the morning of the operation. If the patient is unable to be moved to the bathtub, the baths are given in bed. Prior to the final bath an enema of soap-suds and water and a vaginal douche of bichloride of mercury

(1 to 3000) are given. Immediately on coming from the bath a fresh night-gown is put upon the patient and she is placed in a bed which has been specially prepared for her reception. After returning to bed the abdomen—the seat of the operation—is especially prepared. A nail brush, soap and hot water are used freely and vigorously, special attention being paid to the umbilicus and pubic hairs. In but exceptional cases is the pubes shaved. The abdomen is then bathed with alcohol and turpentine and is finally protected until the time of the operation with a towel wrung out of bichloride solution.

When the patient is placed on the operating table the abdomen is well rubbed with ether and bathed with alcohol by the operator as the final preparation, especial attention being paid to the pubic hairs and umbilicus. The legs are wrapped in a blanket, which extends from the feet to the pubes; a second blanket is placed over the chest. All blankets, clothing, table, etc., about the patient from her chest to her feet are now covered with towels prepared for the purpose, the abdomen being left bare from the epigastrium to the pubes. Over all this is placed a piece of bichloride gauze, with a slit in it at the point of the incision.

2. *The Operating-room and its Paraphernalia.*—All tables used in the operating-room, with the exception of the Krug frame for Trendelenburg's position, which is of galvanized iron, are made of wood, perfectly plain and shellacked. The reason for this is two-fold—first, because it is desirable in the preparation of the room that it should be emptied; this is rendered possible in the case of everything except the gas fixtures and the sink. Secondly, as there is an operating room on each floor, it becomes necessary to frequently move the tables from one room to the other. When not in use, the windows in these rooms are always open. The walls of the room from floor to ceiling are of white tile, the window trimmings are of white marble, the floors are asphalt, the ceilings are plastered and heavily painted. In the preparation the room is first stripped of all its furniture. The walls, ceiling and floor are washed down with a hose, and then mopped off with cloth dipped in bichloride solution. As each article is brought into the room it is scrubbed with soap and water, rinsed off, mopped with bichloride solution, and placed in its proper position; the tables and benches are covered with

sheets or towels specially prepared for this purpose. A glance at the accompanying cut will more clearly demonstrate this.

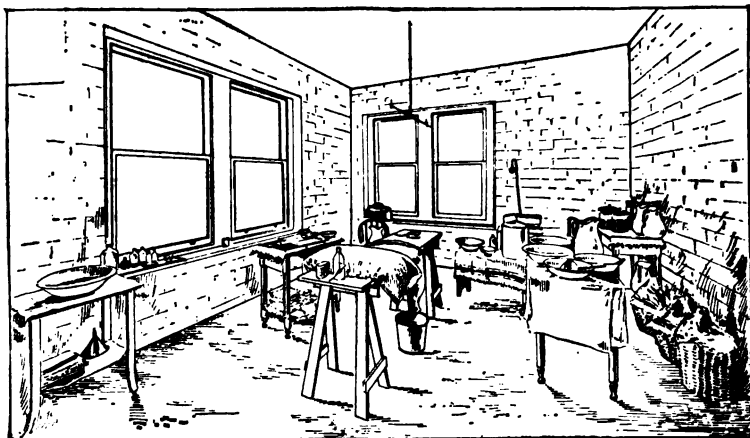


Fig. 85. Operating Room.

All linen used in the operating-room has been laundered by itself. Distilled water is used throughout the operation.

**INSTRUMENTS.**—After an operation the instruments are thoroughly scrubbed with soap and water, and are then passed through scalding water before being returned to the case. Prior to the operation they are boiled for twenty minutes in a weak soda solution. As few instruments as possible are used. In an ordinary operation, two needles, two ligature staffs, four hemostatic forceps, a knife, a needle-holder and a pair of scissors are amply sufficient. These are taken, together with the tray on which they are placed for boiling, directly from the sterilizer, and put upon the table as the patient is brought into the room. In this way they are not handled from the time they are taken out of the sterilizer until they are to be used.

**LIGATURES.**—Three varieties of ligatures are employed—silk, silkworm-gut and catgut. A half-hour before the operation the silk is immersed in a bichloride solution (1 to 100); prior to being used it is washed in boiling water. The silkworm-gut is boiled with the instruments. The catgut is prepared by being immersed in ether for forty-eight hours, soaked for the same length of time in a 1 to 100 alcoholic solution of bichloride of mercury, after which it is put in a solution of

two parts oil of juniper and one part alcohol. It is taken directly from the latter solution for use at the operation.

All sutures and ligatures used within the abdominal cavity are of silk (Chinese twist). Silk worm-gut is invariably used for closing the abdominal wound. Catgut is used principally in vaginal hysterectomy and plastic work.

**SPONGES.**—New sponges are prepared by being thoroughly beaten, soaked for twenty-four hours in a weak solution (3 per cent) of hydrochloric acid, after which they are soaked for twenty-four hours in a strong soda solution, and are finally placed in alcohol. Immediately after being used in an operation they are thoroughly washed in cold water, placed in a strong soda solution (practically a saturated solution) for twenty-four hours, at the end of which time they are removed, washed under the cold water spigot until all the soda is washed away, and are then immersed in a solution of sulphurous acid for twenty-four hours. They are taken directly from the acid solution, washed, and placed in commercial alcohol until used. Four sponges only are used at each operation.

**DRESSINGS.**—The dressing of the abdominal wound consists of placing several strips of dry bichloride gauze over the incision, a cotton pad covered with gauze placed over this, and the whole held in place by a six-tailed bandage. Dressings are not disturbed for eight days. No iodoform or other powder is used. Stitch-hole abscesses are the rare exception.

**DRAINAGE-TUBES.**—After being used, the glass drainage-tubes are soaked in strong soda solution for twenty-four hours, rinsed under the spigot, washed with turpentine and ether, and then boiled for twenty minutes, after which they are kept in commercial alcohol.

Rubber-drainage tube, whenever used, is soaked in bichloride solution, and washed in boiling water.

After an operation the drainage-tube is cleaned by the nurse every fifteen minutes or half hour, as occasion requires. As the fluid discharged from the tube lessens in quantity, the intervals of cleaning are lengthened. Each time the tube is cleaned the nurse's hands are carefully prepared with soap and water and bichloride solution.

At and after each cleaning the syringe used to withdraw the tube contents is cleansed inside and out with hot water

and bichloride solution, as are also the mouth of the tube and the rubber protecting it. Fresh bichloride cotton is placed over the entrance of the tube at each cleaning. The tube is removed as soon as the contents become clear and small in quantity. The edges of the opening left by the tube are drawn together by a strip of adhesive plaster, and the dressings replaced by fresh ones.

3. *The Operator, Assistant and Nurses.*—Everybody who takes part in an operation, and is liable during its performance to handle any of the instruments or materials, is required to go through the same preparation. All assistance is rendered by three nurses; the chief nurse assisting the operator directly, a second nurse attending to the sponges, and a third nurse changing the waters. The preparation of operator and nurses is as follows: a hot soap bath, and clean linen clothing direct from the wash. The hands and arms are prepared by first carefully cleansing the nails with a penknife, a free use of hot water, soap, and nail-brush for twenty minutes, and rinsing in fresh water. They are then bathed in commercial alcohol, and are finally soaked in a bichloride solution (1 to 2000) for five minutes. The greatest danger-point of infection is, of course, under the nails, and time used in a most careful hand toilet is never misspent—is, in fact, absolutely essential to success.

A careful study of the cut, which represents one of the operating-rooms as it appears prior to the introduction of the patient, will demonstrate the simplicity and thoroughness of all the preparations. There is not an article in the room which cannot be duplicated or easily substituted in almost any well-ordered household. Soap, water, nail-brush and bichloride of mercury tablets are easily obtained, and as for the remainder it rests entirely with the surgeon and his nurse. With a little more time and trouble the poorest hovel can be turned into a good and safe operating-room, by adopting these rules, as I have been able to demonstrate time after time in my work in the slums of this great city. Of course, it means plenty of hard labor for both nurse and surgeon, but what nurse or surgeon who has once passed through the horrors of attendance at a death from septic peritonitis would not feel that the work before the operation was as nothing in comparison to that afterward.

The number of instruments, sponges, etc., may seem to many to be entirely inadequate for the purpose, but in many hundreds of operations we have found them amply sufficient; it is the rare exception that recourse to the instrument-case is necessary. The fewer articles used the fewer sources of possible infection and accident. A large number of instruments lying about are, in addition, a source of endless confusion and annoyance, and they require an extra assistant.

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VALEDICTORY ADDRESS\* BY THE RETIRING PRESIDENT, G. H. SCOTT, M. D.

Mr. President and Fellows of the Pettis Co. Medical Society.—Though not the custom of this society for the retiring president to read a paper, cursorily embracing the proceedings during his administration, and other thoughts germane to the subject, still it seemed to me that the infraction of the rule was better than the keeping. I shall endeavor to keep laid any spirit of oburgation, but will most cheerfully consent that any member who may be conscience stricken by what I may present shall have the largest liberty to reprehend himself. Another cycle of months has passed, another annual meeting held; and we now stand on the eminence of the year complete. From this vantage ground we are enabled to review the work accomplished during the past twelve months; make a note of what has been secured and see whether or not the objects of the society have been accomplished. I assume that there can be no question nor divided opinion as to the purpose of the society, viz.: First, to cultivate friendly relations between the members. Second, to stimulate each other to higher attainments in the broad knowledge required not alone to administer to the sick, but also as the conservators of the health of the community in which we dwell. Third, to add as much as is in our power to the renown and glory of our profession, and not be simply weights, or worse, detractors from its fame. I think I state a truth when I proclaim that no individual is made honorable or noble by simply completing a prescribed course of study which entitles him to

\*Delivered before the Pettis Co., Mo., Medical Society, January 8, 1893.

a degree in the profession, but only as he becomes infused by the spirit and humane purpose of his calling, can he be deemed noble.

I remember well, as though but yesterday, an utterance made to his class by that most noble and gifted teacher, and obstetrician of his day, Prof. Charles D. Meigs. "Young men," he said, making an impressive pause and scanning the class, "you have chosen, or perhaps for some your parents or guardians have chosen for you, a most honorable and noble profession. But you mistake if you imagine it to be one of ease, because the demands for your service will oftentimes be urgent, night as well as day, and the duties arduous, also demanding the highest and noblest qualities and sentiments of man."

Without relating more fully Prof. Meigs' talk, I will give his closing sentence for every one present to consider as to its potential influence upon, or in forming character of young men; also, whether or not it would obviate jealousies, bickerings and contentions. "Young men, it is imperative that you should be gentlemen, and you ought to be Christians." A grand injunction by one of the grandest teachers of the art and science of medicine, in his department, this country ever had. I give this pleasing reminiscence as my ideal of the standard of excellence that doctors should strive to attain. I have mentioned the triad upon which medical societies are based, the three-fold purpose of organization.

Now, permit me to recall without over-laudation or embellishment, giving the simple facts, the work of the past year. The stated meetings have been held during the entire year with but three exceptions that I can recall, except the time of adjournment during the last season, comprising the months of August and September.

At every meeting there was a paper read on some one of the many practical medical topics, or verbal report of case or cases, and as opportunity offered, the subject of the case reported was presented to the society for examination. The papers read as a whole were meritorious, claiming the attention of those present, and the discussion started was frank, and entirely free from captiousness or hypercriticism. I think I am justified in saying that the esprit de corps among those who have attended the meetings has been increased. I greatly regret, but strict candor compels me to state, that the meetings

have been sustained and the society kept viable by about one-half of the membership. They have shown a most commendable zeal, always present when professional duties or circumstances would permit, and here allow me parenthetically to say that my observation has proven to me that very busy doctors, if interested and willing to do their part, can find time to attend the meetings without absence for months in duration. I am not gifted with that psychical sense which would enable me to unerringly formulate the reasons why so large a percentage of the membership eschewed the meetings, remembered only, and forcibly, by reason of their persistent absence, and yet all sorts of conjectures naturally arise to solve the question. Why? Can it be that the meetings lacked interest for them? Then as true disciples of the profession, they should have encouraged by their presence, and labored to enlarge the interests, thus absolving themselves of the obligation resting upon them by reason of membership. It is said that a ship cannot sail far with dead weights attached to her, neither I trow can a medical society flourish as it ought with the corpses of a dead membership bound to it. It has been suggested—but perish the thought as unworthy—that the mental food supplied at the meetings has not been palatable and rich enough for the mentality of the absentees. Now, I am sure that cannot be the reason, because, a logical sequence would be the implication that the minds of the stay-aways were more highly endowed than the minds of those who attended, and by their efforts endeavored to keep the flame of interest burning. No, no, such a claim as that would be in an extreme degree ungenerous, just as well predicate that a doctor having a light, or even imagining that he has, would be willing to withdraw it from the street, away from the throng of passers-by, and place the light in an alley where the people do not throng. Did you ever behold a doctor who would be so stupid as that? Show him to me as a *rara avis*. Then, perforce, I must conclude that the suggestion is illogical and unfounded. Unfortunately there are always busy-bodies about who are at the acme of their delight when they can give some far-fetched and illiberal reason for the absenteeism.

The diabolical busy-body says—now I don't for a moment believe what he says, but as a truthful narrator am compelled to tell—he says that the reason is the absentee never intended

to become an active member, and that all he desires is to be known as a member of the medical society, and is blatant in publishing the fact whenever opportunity offers. He desires all the merit and advantages, in a selfish way, that membership can confer as to standing before the public, but he does not intend to be hampered too closely by the rules or code of ethics to which he has subscribed. The same malignant being intimates that artfulness and complacency in the sense I use the words are step-brothers to quackery, and will win patronage ten to one as against unobtrusive science and true merit. The trickster does his work *sub rosa* and in proportion to his subtlety escapes detection, at least for long, while his lofty pretences continue to blind the public. But why should I go into this part of my paper in extenso? Surely every doctor present has seen the prototypes from which I have drawn, and all present are the opposite, upright, honorable and gentlemanly, and could not be induced to go athwart the code of ethics, nor athwart the path of a medical brother. I purposed only to touch these matters briefly and for the sole interest of quickening, if need there is, your earnest zeal for the maintenance of a high standard in the profession, also to emphasize the imperative need of sustaining our society for the purposes heretofore stated. To the gentlemen who have been ever ready by their papers and presence to maintain the vitality of the society, and have shown me, as their presiding officer, every kindness and indulgence, I tender to them my sincere thanks. To all present I offer the greetings of the new year coupled with the earnest hope that it may prove the most successful of all the years in the history of the Pettis Co. Med. Society.

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**A New Specific for Gonorrhea** is a one per cent solution of creosote in decoction of *hamamelis*, combined with boric acid. It is claimed that this will destroy the gonococci in two hours.

**The Will of the late Mr. Edward Cock, F.R.C.S., J.P.,** Consulting Surgeon to Guy's Hospital, who died recently at his residence, Kingston-on-Thames, has been proved at the value of over £92,000.

BRONCHITIS. By E. S. McKee, M. D., Cincinnati, O.

A peculiar case of sudden bronchial obstruction is reported by Carlyon.<sup>1</sup> The peculiarities of the case were the suddenness of the onset without any apparent cause, the instantaneous relief on bringing away the foreign body, and the composition of the same, which was that of calcium and pus. It was an elongated body, weighing three grains, and having the appearance of bone.

Abscess of the brain is reported by Kohler<sup>2</sup> which followed putrid bronchitis. It was followed by paralysis, and the patient died in deep coma.

Grun<sup>3</sup> has come to the conclusion that bronchitis can no longer be regarded as a manifestation on the part of the bronchial tube, of a simple chilling of the blood circulation in the capillaries of the skin, although there can be but little doubt that cures do arise from this cause in an indirect manner. He assumes as a hypothesis, that possibly the cilia of the tubes act less readily after chilling, although this has not been proven, at least as far as cilia within the body are concerned. Cilia without the body do certainly require some certain temperature, at present undetermined, for the proper exercise of their powers, or they may possess defective power of destroying the bacteria after chilling.

In the treatment of bronchitis, the inhalations of peroxide of hydrogen, 1 to 10 parts in 100, has been recommended by Gabrilovicx, the weak solution at the beginning, the inhalations being continued for several months.

The hydrochlorate of quinine, injected subcutaneously has been successful in the hands of St. Phillippe.<sup>4</sup> He makes use of a solution of chloral hydrate, of quinine, and equal parts of glycerine and water. In severe cases, quinine and aconite are to be abandoned, and caffeine given subcutaneously, with digitalis and alcohol as stimulants. He has found that oxygen inhalations have given better results than injections of ether.

- (1). *British Medical Journal*, Dec. 27, 1890.
- (2). *Deutsche Medicinische Wochenschrift*, Feb. 19, 1891.
- (3). *Lancet*, June 27, *St. Louis Medical and Surgical Journal*, *Revue de Clinique, et de Therapie*, *Journal de Medecine de Paris* Sept., 1891., *Lancet-Clinic*, Nov. 7, 1891.
- (4). *Journal de Medecine*. June 21, 1891, *Therapeutic Gazette*, Oct., 1891.

In chronic bronchitis, Patton<sup>8</sup> uses for an aged person a dose containing 5 to 10 grains iodide of potash, two or three drops of tincture of belladonna, and 1-12 grain of tartarized antimony. In children and young people one of the best remedies is syrup hydriodic acid.

Acetanilide in acute bronchitis, according to the investigations of Grün,<sup>6</sup> has the power of preventing the reproduction of the bacillus, which Grün thinks may be the cause of the bronchitis. This same power is possessed by thymol and mercuric bichloride, but the acetanilide is the least offensive of these agents and equally effective. This remedy in the doctor's hands, in doses of 40 centigrammes, 5½ grains, three times a day, arrested the disease very promptly.

Cocillana is a drug highly recommended by Wilcox.<sup>7</sup> It is a true expectorant. The tincture is objectionable on account of the alcohol which increases congestion. The fluid extract which is given in 5 to 15 minim doses every three or four hours. Cocillana does not cause so much watery expectoration as apomorphia, as it acts mainly on the muciparous glands. The therapeutical effect of cocillana is slower in attainment than apomorphia, but of longer duration; so that if prompt impression is desired, we can commence with apomorphia and continue the effect with cocillana. Cocillana increases, apomorphia diminishes, appetite. Cocillana is an internal laxative, an overdose causes a severe and persistent nausea which is a disadvantage. The author treats acute bronchitis as follows: To abort inflammation, pilocarpine in robust men, or apomorphia in the first forty-eight hours, later cocillana. In longer standing cases, muriate of ammonia, and when the expectoration is scanty, terebene.

Sanford<sup>9</sup> has met with success from terebene, also from the salicylate of ammonia. Tuberculous bronchitis has been satisfactorily treated by Gavey with iodoform hypodermically. He gives a quarter of a syringeful of 1 part iodoform to 100 parts of oil of sweet almonds; a febrile reaction is produced in very few cases and the results obtained in the majority of instances are excellent. The cough rapidly diminishes, mucopurulent expectoration so characteristic of this specific

(6). *Gazette Medicale de Paris*, Feb. 28, 1891, *Therapeutic Gazette*, Feb., 1891, *Medical and Surgical Reporter*, May 23, 1891.

(7). *St. Louis Medical and Surgical Journal*, Jan. 1891.

catarrh, becomes more fluid and finally ceases almost entirely; alterations in the character and hoarseness of the voice disappear; the lungs become more permeable to air, inspiration becomes deeper; the vesicular murmur acquires another character and sub-crepitant moist râles disappear, nocturnal sweats cease, the appetite returns and the patient's general health improves.

Apomorphine has been found by Murrell,<sup>8</sup> when administered on an empty stomach, to produce vomiting much more readily than when administered after meals. He thinks the rate of absorption has much to do with the entire effect. When given hypodermically it is absorbed at once; when given on an empty stomach it is absorbed more rapidly than when mixed with foods. He used it in large doses as an expectorant, giving it in doses of  $\frac{1}{2}$  to  $1\frac{1}{2}$  grains three times a day after meals. This same author made experiments with apomorphine, made into ointment and rubbed into the chest. He found one grain to the ounce of lard or lanolin,  $\frac{1}{2}$  the quantity rubbed into the chest at night, proved expectorant. This is a fact of very great practical importance, especially in the treatment of children. He found the expectorant effect in many by using the apomorphine as a spray. This was very marked when used in large doses, and a dose which would act as an emetic, if used hypodermically, can be used as an inhalation without producing this effect. Apocodeine, he found, acted as a prompt expectorant when given in the form of a pill of 1 grain three or four times a day.

The action of iodoform on pus globules lead Gavey<sup>9</sup> to test this remedy in pill form in tubercular bronchitis. The gastric distress and nausea caused by the remedy compelled him to substitute enemata for the internal administration, and he has now, for various reasons, had recourse to the hypodermic method. Iodoform is said to have the power of liquefying the more or less solid obstruction in the alveoli. He recommends in the warmest terms further tests with this remedy in this connection.

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(8). *British Medical Journal*, Feb. 28, 1891.

(9). *Transaction Tri-State Medical Association, of Mississippi, Arkansas and Tennessee*, 1891.

## Clinical Reports.

A MALIGNANT CASE OF TYPHOID FEVER. By C. H. POWELL,  
A. M., M. D., St. Louis.

Cases of this fever are common enough among us at present, and keep the physician constantly on the *qui vive*, but the ordinary cases of typhoid fever as presented from day to day are so alike in their signs and symptoms as to be familiar to us all. I venture to say there are few practitioners in our city who have come in contact with a more severe attack of typhoid than the following case.

One evening in November, the father of this patient called at my office for medicine, saying his child was complaining that she was feeling badly, and seemed to be with fever. I gave him some tablets containing fractional doses of aconite, and was told to call the following morning at his country home, seven miles distant. The day following I visited the patient, and was somewhat surprised to find her symptoms highly diagnostic of typhoid fever. The abdomen was distended, tender on even the slightest pressure, and gurgling both as a tactile sensation, and distinctly audible, was well pronounced. Her pulse was 120 per minute, her temperature 104°.2 Her bowels were loose, respiration was about twenty per minute, her countenance presented that ashy color so characteristic of typhoid fever, her intellect was undisturbed. I at once told the mother I believed the condition to be typhoid, but would give quinine freely; call again in the evening and see what results followed. I, therefore, gave four grains of quinine every three hours. Arriving at the house in the evening, I found the pulse and temperature unchanged, though the patient had taken sixteen grains of quinine and was well cinchonized. I, therefore, confirmed my previous diagnosis and unequivocally informed the family it was a case of typhoid fever. For her diarrhoea I gave twenty grains of bismuth and thirty drops camphorated tincture opium, with ten drops tincture of catechu every two or three hours. The day following I found the patient had passed a poor night; in spite of the mixture her bowels moved several

times, her tongue was coated with a black, fading off to a yellow hue, and red on its tip and edges, sordes was gathering on teeth and gums, she also bled profusely from the nose, and spit out mouthfuls of blood mixed with frothy saliva. Added to this was delirium; her mind was constantly in motion, she shouted, laughed, reproached, became violent, struck those around her in the face, wished to leave her bed, and was only restrained with the most powerful mental and forcible means. I ordered whisky to be freely given; her pulse was 130, her temperature  $103^{\circ}.6$ , also gave her the lead and opium pill and two drops nitro-muriatic acid, diluted in syrup, three times a day. For her delirium I gave the bromide of potash. For the next few days I visited her twice a day. In some respects she improved, but in others steadily lost ground. The lead and opium readily controlled the bowels, but the poison was quickly overwhelming the nervous system. No means, opium, the bromides, Hoffman's anodyne or chloral separately or combined, would have the least effect. The patient went from bad to worse; she was constantly grasping for invisible objects (carphologia) and fumbling with the bed-clothes. Heart failure finally added itself to the existing troubles; this was at first readily remedied by a hypodermic injection of whisky in the leg. In three hours, however, the heart again flagged; again did the whisky come to the rescue, but it required a larger quantity with digitalis added. A few hours later the same trouble returned; repeated injections of whisky and digitalis failed. I gave a large enema of salt and water, but all proved unavailing, and the patient sank away until death cut short all further attempt at resuscitation. The duration of the disease from the date of taking to bed, was exactly eight days. Dr. J. B. Johnson, who was present shortly before death in consultation, remarked to me that the case was the most malignant he had ever met with in his years of practice.

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The Dietetic and Hygienic Gazette comes out with the beginning of the year in a new and handsome cover. It is also greatly improved typographically.

## Correspondence.

### MYALGIA.

There is no disease which has been more trouble to diagnose than this one which we mention. There are and have been more failures in its treatment than in the majority of affections. In many cases it is called muscular rheumatism, neuralgia, and it has had various other names.

I have treated several cases in the side, in which some think that they have pleurisy or pleurodynia. The change of the atmosphere have something to do with it. A constrained position of the body tires a set of muscles and we have myalgia. There will be no fever nor acceleration of the pulse; no swelling or redness of any muscle or set of muscles. Some kinds of headache are myalgia in cases where it is caused by an over-exertion of the mind, just as in physical exercise of the muscles.

Treatment—I find that muriate of ammonia in ten to fifteen-grain doses has considerable effect upon this condition. The bromides also seem to do good, massage of the tired muscles has good effects; stimulating liniments do great good; hot-air baths have a powerful influence for good combined with tonics, more especially iron with calisaya and strychnia.

Harmon, Lee Co., Ill.

WM. HENRY, M. D.

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AN OPEN LETTER FROM CHARLES MARCHAND, Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures, de Paris," (France) to Prof. A. JACOBI, M. D., of New York.\*

My attention has been called to an article read before the "American Pediatric Society," at Boston, May 4, 1892, by Professor A. Jacobi, M. D., and published in the December number of *The Archives of Pediatrics*. This article is entitled, "Note on Peroxide of Hydrogen," and purports to be a "warning."

\* Published by the *Archives of Pediatrics*, January, 1893.

The learned writer at the beginning enters into a diatribe regarding proprietary medicines of all kinds, and endeavors, by an extravagant list of diseases, (many of which have never been mentioned by me as being connected with the subject), to convey the impression that, peroxide of hydrogen (medicinal) is a "nostrum," and that the manufacturer of this article is to be classed among "quacks and patent medicine vendors."

He then commiserates the "immense number of unsophisticated medical men all over the country for their relative inability" to successfully "cope with the misery surrounding them," and intimates that the "trash" written regarding peroxide of hydrogen (medicinal) is not published for his hearers, who, being writers and teachers, are above the common horde of medical practitioners. With this compliment to his hearers and most uncomplimentary reference to an "immense number" of his professional brethren, Dr. Jacobi proceeds to mention several cases of diphtheria, which, having been apparently greatly relieved by the use of peroxide of hydrogen (medicinal), finally were cured under the use of lime water, as a spray and wash.

The inference drawn by the writer of the article in question is, that the peroxide was an "irritant" and had been of more harm than good.

It is not my province as a chemist to enter into a medical discussion with the learned doctor, but I would like to ask if, in his opinion, a case of diphtheria can be treated successfully with lime water only, and whether in the cases he cites, it is not possible that the peroxide treatment was an important element in the recovery of these patients. I would also inquire whether the intemperate and in some instances personal allusions to myself and the preparation which I manufacture are in all respects the outcome of professional investigation, and not the result of a desire to advertise himself by discrediting a remedy of which the therapeutic value has been proved by thousands of physicians who, though they may be "unsophisticated" from Dr. Jacobi's standpoint, are nevertheless known as eminent and honored professional men all over the world.

The drift of this article is seemingly an attempt to prove that Marchand's peroxide of hydrogen (medicinal) is injurious.

In confutation of this, I append herewith, in as concise a manner as possible, the experience of a few prominent physicians, whose statements may be taken as conclusive in the sense that they are learned and talented professional men, the equals if not the superiors of the writer who challenges their experience, after having undoubtedly read their opinions, for every word I quote here has been published, and forms a prominent part of the medical literature of the day. (We omit these articles on account of lack of space.—EDITORS.)

In confirmation of my sincere belief that the claims made by me of the harmless character of my medicinal peroxide of hydrogen are true, I am willing to submit myself to a thorough test upon my own throat by spraying it with a twenty-five per cent solution of Marchand's peroxide of hydrogen (medicinal) instead of a five per cent solution as alleged to have been used by the learned doctor, for the same continuous number of days mentioned by him; and if any ulceration appears, or if the repeated applications of the remedy "does give rise to actual diphtheria," as he states may be possible; then I am willing to acknowledge that he is right. This test may be made at any time with the utmost publicity.

I make this proposition in good faith from a scientific standpoint, and will expect Dr. Jacobi to make the test in the same spirit or acknowledge that he does not desire to do so.

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**Third Congress of American Physicians and Surgeons.**—The first meeting of the Executive Committee of the Third Congress of American Physicians and Surgeons was held December 27th, in Philadelphia. The committee was organized by the election of Dr. William Pepper as chairman, and Dr. Newton M. Shaffer as secretary. The following officers of the Congress were elected: Dr. A. L. Loomis, of New York, president; Dr. W. H. Carmalt, of New Haven, secretary; Dr. John Shaw Billings, of Washington, treasurer; and Dr. S. C. Busey, of Washington, chairman of the committee of arrangements. It was decided to hold the next meeting in Washington in May, 1894.

### Editorial Department.

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### The Earlier Editors of the St. Louis Medical and Surgical Journal.

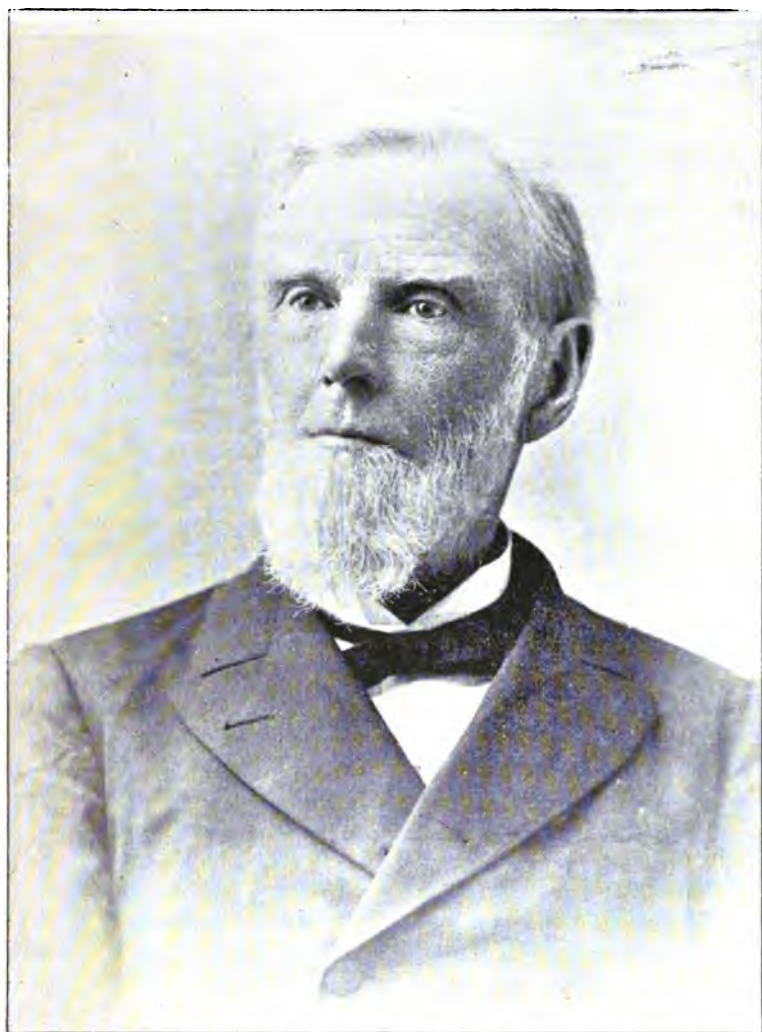
#### II.—DR. WM. M. MCPHEETERS, 1845-1861.

"Age sits with decent grace upon his visage,  
And worthily becomes his silver locks."

##### BIOGRAPHICAL.

Dr. Wm. M. McPheeters, the only living editorial coadjutor of Dr. Linton in those early days, is still an active practitioner of medicine in the City of St. Louis, which for fifty-two years he has made his home.

Dr. McPheeters was born in Raleigh, N. C., December 3, 1815. He was the second son of William McPheeters, D. D., a Presbyterian clergyman of prominence and ability. After the ordinary routine of school, young McPheeters was sent to the University of North Carolina, to complete the usual college course. After graduation he took up the study of medicine under Professor Hugh L. Hodge, of Philadelphia, subsequently entering the Medical Department of the University of Pennsylvania, where he was graduated in 1840, at the age of 25 years. He put in one year as resident physician at the Blockely Hospital, Philadelphia, and then turned his face westward. He came at once to St. Louis, then the rising metropolis of the West, arriving here October 15, 1841. Since this time, with the exception of three years spent in the Con



*H. M. McPheters*



federate Army, Dr. McPheeters has always held a prominent position among the physicians of St. Louis.

Very early in his career in this city, the doctor, in conjunction with Drs. Chas. A. Pope, S. G. Moses, J. B. Johnson, George Johnson and J. I. Clark, established the first public dispensary west of the Mississippi River. Unfortunately, no record of the foundation of this institution can be found in our files, so that we cannot give the exact date of this historical event. It must have been, however, early in 1844, as we find him announced as one of the physicians of the St. Louis Dispensary in May of that year.

In 1843 Dr. McPheeters was chosen Professor of Clinical Medicine and Pathological Anatomy in the St. Louis Medical College. Shortly afterwards (April, 1844) he took the chair of *Materia Medica*, Therapeutics and Clinical Medicine in the same college, and held it until 1861, when he resigned it to go South. In 1856 he was appointed Surgeon of the United States Marine Hospital, and held the position for five years. During this period he was also physician in charge of the medical wards of the Hospital of the Sisters of Charity.

During the war, as has previously been intimated, the sympathies of Dr. McPheeters were with the South, and in 1861, resigning all his positions of honor and trust, giving up a large and lucrative practice, he obeyed the dictates of his conscience and cast his fortunes with the Confederacy. In the medical corps of the Southern Army his talents, experience, and indefatigable zeal were quickly recognized, and he held many responsible positions, among them that of medical director on the staff of General Sterling Price.

After the war was over Dr. McPheeters returned to St. Louis to begin anew his career of usefulness and success. He resumed in 1866 his old chair of *Materia Medica* and Therapeutics in the St. Louis Medical College, and it held for eight years, resigning it in 1874 to accept the position of Medical Director of the St. Louis Mutual Life Insurance Company.

It would be a useless task to enumerate the honors that have been bestowed upon Dr. McPheeters at the hands of fellow practitioners and the various medical associations to which he has belonged, and of many of which he is still an active member. He has been president of the St. Louis Medical Society and of the Missouri State Medical Society; first

vice-president of the American Medical Association, honorary member of the Medical Association of Arkansas and North Carolina, etc.

Dr. McPheeters has been twice married—the first wife having been Miss Sheldon, of Virginia, who died early, and the second, Miss Buchanan, of St. Louis. By the latter the doctor has had six children. At the present writing Dr. McPheeters and his family are living in comfort and happiness in the “West End” of our beautiful city, the doctor still active in the practice of the profession that he has followed so long. That he may live long years yet, and when the final summons comes that it may find him in the full possession of his faculties—in the harness, and ready to go—is the sincere wish of the entire medical profession in St. Louis, and the thousands and thousands of laymen who have had so many occasions to “rise up and call him blessed.”

#### CAREER AS AN EDITOR.

In looking over the earlier volumes of the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, the first article of Dr. McPheeters' that we find occurs in Volume 1, No. 11, February, 1844, page 168. It is entitled “On the Use of the Speculum Vaginæ.” This instrument, though, as we now know, used by Pompeiian surgeons 2,000 years ago, and probably long before them, had only a few years previously been re-introduced to the medical profession, by Ricord, in France. From France it passed somewhat slowly to England and thence into America, arriving in St. Louis but a short time previously. Of course, like all things of the sort, it had to fight its way, being opposed, as Dr. McPheeters remarks, “from fastidious notions of female delicacy.” In his article the doctor makes a masterly argument for the instrument, showing its great value and usefulness.

We next find him reporting his clinic in the St. Louis Hospital, the first report appearing in May 1844. In June of the same year he reported a very interesting case in private practice, of strangulated hernia with fatal results.

At the close of Volume II, we find the Editor, Dr. Linton, introducing Dr. McPheeters' as prospective co-editor in the following words:

“In carrying out our design (*i. e.* enlarging and improving the JOURNAL) we have availed ourselves of the services of

Dr. McPheeters, of this city, whose talents and devotion to whatever pertains to medicine justify the expectation that the cause of medical science in the West, will be promoted by his labors as Co-EDITOR. We solicit for our enterprise the patronage of the medical public. Devoted to the medical interests of St. Louis, but the engine of no school, clique, or party, our pages will be open to all, constituting a faithful vehicle through which humanity may utter its complaints to science and science send forth its maxims of wisdom to humanity."

Volume III. (1845-46) opens accordingly, with M. L. Linton, M. D., and W. M. McPheters, M. D., and one other name (which we bring in here, since, with all our efforts we have been unable to get any reliable history of him), Dr. V. J. Fongseaud,\* as editors. From this time onward, for sixteen years Dr. McPheeter's name is intimately connected with the literature of the JOURNAL. Sometimes his articles are under his full name, at others we recognize only his initials, "McP."

On the fifth day of January, 1849, cholera made its dread appearance in St. Louis, and it did not disappear until December 17 of the same year. During this period no less than 4,557 persons died with the disease, and the population of the city, 70,000 in January, had by August dwindled to 50,000. Dr. McPheeters was, as might be conjectured, actively engaged in combating the disease, and in March, 1850, he published in the JOURNAL his "History of Epidemic Cholera in St. Louis," that will long remain one of the classics in its line.

We will not undertake to even allude further to the many valuable editorial contributions which the subject of our sketch made to the ST. LOUIS MEDICAL AND SURGICAL JOUR-

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\*OF DR. V. J. FOURGEAUD we have been able to learn that he was a young Frenchman, who came to St. Louis from Charleston, S. C., and that after a short sojourn here he left for California and the remote west, where all traces of him were lost. During the two years of his connection with the JOURNAL he contributed a series of editorial articles on Eclecticism in Medicine which betrayed a fine classical education, great research into the history of medicine in Egyptian, Greek, and Roman times, and a thorough knowledge of Arabian medical science in the middle ages, as well as an acquaintance with the medicine of modern Europe. His articles are intensely interesting even to-day, and show him to have been a master of the English as well as of his native tongue. We shall have occasion to refer to these articles later, in a history of the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, which is being prepared for one of our Semi-centennial Series.

NAL. The files from 1844 to 1861 bear testimony to his industry as an editor. In all this period it is to be remarked that although possessed of a facile and ready pen, he never wrote unless he had something of value to communicate to his brother practitioners, nor was he ever mixed in the violent personal controversies which, from time to time, unfortunately marked the history of local medicine. Of late years, Dr. McPheeters has not been a contributor to medical journalism, though we have no doubt that his private memoranda contain many an interesting case, the publication of which would delight his old-time readers and confreres, many of whom still survive.

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## Microscopy.

### Spermatogenesis in Mammals and in Man. IV.\*

O. Hertwig, in a recent work places in evidence the reduction of the nucleus substance of spermatozooids. The main features of his view of the matter are as follows :

There is no need to question whether the nucleus substance removed from the sexual cellules before the latter are in a condition to unite, is male or female. The reduction of the substance is sufficient evidence. As far as the ovule goes, the fact of that reduction is well established. It takes place at the moment of the formation of the polar globules, and depends on the fact that the formation of these globules consists of two karyokinetic cellular divisions *which follow each other immediately and without a period of repose.*

In fact, we know that a nucleus about to divide, separates its chromatin into two exactly equal parts, of which each daughter nucleus takes one. The new nuclei, then, each contain but one-half of the chromatic substance, that belonged to the parent nucleus; but during the period of repose which follows the division, they recuperate chromatin by personal nutrition and soon possess as much as did the parent nucleus at the moment of division. This recuperation of chromatin is absolutely necessary, as otherwise, in the process of karyokinesis, that element by constant partition would soon be

\*Final Conclusion from January MEDICAL AND SURGICAL JOURNAL

extinguished. If, however, cellular division commences at once after partition, without a period of recuperation in the daughter cell, it is clear that there must be a reduction of the quantity of chromatin in the second generation. This nucleus (i. e. of the second generation), in passing into the period of repose, never acquires any more chromatin than was in the parent cell at the moment of division; that is to say, the half of that contained in the parent cell of the parent cell, or, if we may use the term, the grand-parent cell. The production of polar globules is due, as we know, to two cellular divisions which take place between the ovule on one side, and a polar globule on the other without an interval of repose, and results in a reduction of the chromatin of the ovule. In spermatogenesis, spermatides are derived from spermatocytes by two successive divisions, and without intermission, the consequence of which is the reduction of their chromatin by one-half.

Thus, in the same manner, both the ovule and the spermatozoids undergo a preliminary reduction of their chromatin. The sole difference is, that while the four spermatides, born of the repeated bi-partition of a spermatocyte, are all capable of transformation into spermatozoids, and of fecundating ovules, the elements sprung from the division of the unripe ovule divide themselves into two groups, ovules capable of fecundation and polar globules, which are merely atrophied cells incapable of fecundation or further evolution.

The latter are perhaps, as Hertwig suggests, sister cells of the ovule, less highly endowed than the latter, and who, in the struggle for existence, must yield place to the better nourished cells.

This point of view enables us to group the analogous phenomena which occur in the evolution of both ovule and spermatozoid.

We have by no means exhausted all the questions which would arise in the exhaustive treatment of this subject. They would demand too much time and space. We have, however, indicated the principal facts in a certain way dominating the phenomena of spermatogenesis, and of which we can make the following resumé:

1°. Spermatogenesis is the result of the testicular cells, which latter alter their form in the process of proliferation,

and reveal themselves under the aspect of spermatogens, spermatocytes and spermatides.

2°. Spermatozoids spring from simple transformation of spermatides.

3°. We must admit a ripening of the spermatozoid as we admit the ripening of the ovule. This ripening consists of a reduction of the chromatic substance of the ovule or of the spermatozoid. In the spermatozoid the reduction of substance, or ripening, occurs at the time when the spermatide divides itself twice in succession without an intervening period of repose, to engender four spermatides.

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### The Microscopical and Macroscopical Examination of Expectorated Material.\*

I. Physical Character.—Expectorated matter, sputa or "crachats" (as we shall call them for brevity, throughout this article) are the solid or liquid matters found in the lungs and respiratory viæ. They are very variable of aspect, being sometimes transparent, sometimes opaque; sometimes semi-solid or solid, at others fluid. They may be thick and tenacious, or foamy and with but little tenacity; homogeneous, or separating into distinct layers. They are of varied color, and may have no odor, or a strongly and characteristically disagreeable one. Their quantity varies within wide limits.

#### COLOR.

This depends on the nature of the crachats. The following are the principal color indications:

a. *Yellow crachats:*

Yellowish, mucopurulent.

Citron, saffron, or greenish yellow, muco-sanguinolent.

Dirty greenish yellow, gangrene.

b. *Red or reddish crachats:*

Clean red or brown-red, hæmorrhagic.

Rusty-red, muco-sanguinolent.

Blackish red, sero-sanguinolent.

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\* Note of M. Edouard Sergysels of Anvers, in the *Journal de Pharmacie d'Anvers*.

*c. White or mixed crachats :*

White, grey, dirty grey, purulent and mucopurulent.

Green, mucosanguinolent.

Blackish-green, gangrenous.

Yellow-green, purulent.

Brown, gangrenous.

FORM.

Crachats seldom have a determined form, though frequently they are sufficiently viscid to retain a rounded, globular or a flat-round form, and are hence called "nummular" crachats. Most frequently, however, they are too liquid to retain any special figure. Sometimes, though very rarely, crachats preserve the form of the alveolar or bronchial cavities in which they are moulded, so to speak. In such cases they are alluded to as "arborescent."

ODOR AND CONSISTENCE.

Ordinarily odorless, nevertheless crachats may acquire a most nauseous alliaceous odor. Sometimes the odor is gangrenous.

The consistence of crachats has, under ordinary circumstances, the following indications :

Fluid, transparent or foamy, are serous, or sero-sanguinolent.

Ropy, transparent, vitreous, are mucous.

Semi-transparent, homogeneous, are muco-purulent.

Opaque, separating on repose into two or three layers, purulent.

Thick, consistent, whose viscosity is so great that when gathered in a vessel they resist all attempts to remove a portion, and remain adherent, even though the vessel is overturned, are muco-sanguinolent.

OTHER PHYSICAL CHARACTERISTICS.

Crachats may, as stated above, be either entirely transparent or entirely opaque, or of any degree of semi-transparency. Sometimes they are full of scattered opaque points, sometimes streaked with blood, etc. They also frequently hold in suspension matters foreign to the normal air passages, such as bilious coloring matter, dust, powders of carbon, iron, steel, silica, tobacco and other vegetable matter.

As to the abundance of expectorated matter, or frequency of expectoration, we may say that in general the following are the indications:

Infrequent expectoration—mucous crachats.

Frequent and moderately abundant—sero or muco-sanguinolent.

Very abundant—serous, purulent, or muco-purulent.

2. **CHEMICAL AND HISTOLOGICAL CHARACTERS.**—In general we may say that crachats are composed of water and mucine, in varying parts, forming a more or less thick solution, in which are suspended various morphological or special elements, viz.:

a. Morphological elements of the blood and respiratory viæ.

b. Special elements.

c. Crystals.

d. Animal and vegetable parasites.

#### MORPHOLOGICAL ELEMENTS OF THE BLOOD.

a. *Leucocytes*: Spherical, colorless bodies, consisting of a granulous protoplasmic mass without a membrane, of irregular contour, and slightly crenelated. The protoplasmic granules are some of them of albuminous and others of fatty nature. Under the microscope leucocytes are found either intact and unaltered, or disrupted and altered. If altered, their borders are irregularly scalloped and the nuclei are not well defined. Frequently the nucleus alone remains, with a few still adhering granules.

b. Redblood-corpuscles, unaltered or altered. When altered they lose the exactly round and smooth contour and become crenelated at the borders, and shrunken and irregular in shape. Sometimes they are reduced to a mere irregular, colorless disc without apparent thickness, and they may under certain circumstances disappear altogether (as a cell entity) leaving as witnesses of their former presence only pigimentary granulations or crystals of hæmatoidin.

#### MORPHOLOGICAL ELEMENTS OF THE RESPIRATORY VIÆ.

a. *Pavement epithelial cells, altered or unaltered.*—These are derived from the inferior vocal cords, certain parts of the larynx, or from the mouth, or from all of them. They are flat polygons with a granular cellular body and an oval nucleus.

b. *Vibratile cylindrical epithelial cells*, coming from the posterior nasal fossæ and the mucous membrane of the larynx, trachea and bronchi. They are cylindrical in form and have a nucleolated central nucleus. The free or surface face is covered with cilia and the inferior part is furnished with prolongations. When these cells are altered they assume an irregular polyhedral, cubical or spherical outline, or they may be transformed into calix-shaped cells.

c. *Alveolar epithelial cells*. Round, oval or gently polyhedral nucleated bodies containing granular matter, which latter consists of blackish pigmentary granules, of brilliant fatty particles and of minute, colorless transparent masses, consisting of hyalin. Alveolar epithelial cells, aggregated into masses, may be frequently seen with the naked eye in sputum, where they form little greyish or brownish specks.

d. *Elastic fibres*. These are found running through the stroma of connective tissue carpeting the cavity of the pulmonary alveoles. They are fine, colorless, non-striated fibres, frequently ramified, and undulous in their longitudinal directions. A ten per cent solution of potassic hydrate, by dissolving other matters makes them very apparent. Picric acid colors them yellow.

#### SPECIAL ELEMENTS.

a. *Fibrinous Exudates*. These consist of fibrinous fibrillæ, disposed in rouleaux or entangled in a network of fibres or bands. Between the fibrillæ may be seen leucocytes, epithelial cells and sometimes red blood corpuscles. These exudates can usually be seen with the naked eye when the sputum is very thinly spread out between cover-glasses and regarded against a black field. Thus examined they appear as opaque grumous, white deposits. Isolated and agitated with water they appear as very minute filaments.

b. *Pseudo-membranous Products*.—These consist of fibrine disposed in the fashion of a net, whose meshes usually enclose leucocytes.

c. *Curshmann's Spirals*.—These are tenuous filaments rolled into a spiral shape around a central canal.

d. *Calcareous Concretions*.—Hard, ramified, white or gray masses.

e. *Fragments of Pulmonary Substance*.—Brown, greenish or blackish debris.

## CRYSTALS.

a. *Cholesterin*.—Colorless, transparent rhomboidal lamellæ, frequently superimposed, or partially superimposed one upon another.

b. *Leucin*.—Crystals united in brown, spherical or rounded masses.

c. *Tyrosin*.—White, silky needles, occurring in tufts or bunches.

d. *Crystals of Fatty Acids*.—Fine colorless needles, isolated or united in rosettes. Sometimes they occur as curved figures, frequently disposed in bundles.

e. *Hæmatin*. Rhombic or acicular crystals of a matt red color, or sometimes apparently amorphous, brownish red granulations.

f. *Leyden's or Charcot's Crystals*.—Colorless octahedral bodies, somewhat elongated.

## PARASITES.

a. *Animal Parasites*.—These include fragments, membranous debris, hooklets, etc., of echinococci, infusorians of the monad group (*Monasleus, Cercomonas*).

b. *Vegetable Parasites*.—*Aspergillus, oideum albicans*, molds of different descriptions, schizomycetes (including micrococi, sarcines, bacilli, bacteria, vibrions, leptothrix buccalis and pulmonalis, etc.), Koch's bacillus and pneumococci (rounded or olive-shaped bodies, united by twos, or associated *en chaîne*).

3. MACROSCOPIC AND MICROSCOPIC EXAMINATION.—*Serous Crachats* are transparent, liquid as soap water, foamy—the bubbles at the surface filled with air, and the whole looking like the beaten white of eggs. They hold in suspension pavement epithelium cells, vibratile cylinders, leucocytes and (rarely) red blood corpuscles.

*Mucous Crachats*.—These are less clear than the foregoing and thicker, resembling more a solution of gum arabic. They are ropy, transparent and glassy-looking. The same morphological elements are present as noted in the preceding. There are, frequently, scattered through them spots or striæ of blood. They frequently contain maculæ or small masses of a yellowish or green color and consisting of epithelial cells and Leyden's crystals.

*Muco-purulent Crachats*.—These are denser and more nearly

opaque than mucous crachats. They are homogeneous, of a yellowish or dirty gray color, and generally of a nauseating odor, though they may be inodorous. They always contain a large number of leucocytes, while all the other elements occur but sparsely, or are altogether absent.

#### PURULENT CRACHATS.

a. Opaque, of a yellowish green color, and when left in repose separate into two layers, the superior of which, serous in nature, contains a few leucocytes, some red corpuscles and some epithelial cells. The lower layer, thick, greyish in color, contains intact or altered leucocytes, accompanied by a granular detritus, and elastic fibres mingled with brown or yellowish pigmentary matter.

b. Crachats composed very largely of leucocytes assembled in opaque, round or globular masses of a greenish yellow or dirty grey color, held in suspension in a sero-mucous liquid. These masses, when they contain no air-bubbles, soon fall to the bottom (nummular crachats), but when they contain much air they float to the surface of the liquid. Left in repose these crachats gradually separate and form three strata, the upper of which is spumous, greenish yellow, opaque and consists of grey or yellow muco-purulent matter. The middle stratum is liquid, white or whitish and serous.

The inferior stratum is sedimentary, puriform, of considerable consistency, of greenish or brownish yellow, and contains elastic fibres, white, yellow, brown or green grumous matter, brown, greenish or blackish pulmonary tissue, and micro-organisms. The white grumous material consists of masses of leucocytes, the brown of granular detritus carrying a yellow or brown pigment, and the yellow of fatty matter, granular detritus and acicular crystals of fatty acids.

#### SERO-SANGUIOLENT CRACHATS.

These are the so-called licorice juice or prune juice sputa. They are fluid, serous, foamy and of a dark red or rose red color according as the red corpuscles of which they very largely consist are derived from arterial or venous sources.

#### MUCO-SANGUIOLENT CRACHATS.

Thick, viscous, gelatiniform, of varied color, ranging from a rosy red, through saffron, lemon yellow and greenish yellow to green. They consist of a mucous liquid in which we

find red corpuscles in varying quantity, leucocytes, epithelial cells, loaded with pigment, fat and myelin matter; and finally fibrinous coagulations moulded to the form of the alveolar or bronchial cavities.

#### SANGUINOLENT AND HÆMORRHAGIC CRACHATS.

Sanquinolent sputa are those which carry spots or striæ of blood visible to the naked eye. Hæmorrhagic sputa are red or reddish brown throughout, the color being due to the presence of blood.

#### GANGRENOUS CRACHATS.

Liquid, of a brown, dirty, greenish-yellow, or blackish-green color, and a fœtid alliaceous odor. Left in repose gangrenous sputum separates into three strata, of which the superior is muco-purulent; the middle serous, and the inferior is thick, almost semi-solid, and contains elastic fibres, debris of pulmonary tissue, white and yellow grumous masses, soft and very fœtid, and, finally, micro-organisms in great quantity.

F. L. J.

[CONCLUDED IN THE MARCH NUMBER].

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### Dermatology and Genito-Urinary Diseases.

**Artificial Eczema.**—Unna (*Monats. f. prakt. Derm.*) demonstrated to the Medical Society of Hamburg eczematous spots on himself and his laboratory servant, produced by inoculation with a special coccus, which had been cultivated from eczematous fluids. The cultivation of the coccus required special conditions as regards contact with the oxygen of the air, and sufficient moisture.

**The Itch Parasite.**—Perroncito took a portion of the skin (*Giorn. della R. Accad. di Med. di Torino*) of a cat affected with itch, and found that for two days the acari were living and mobile in the liquid in which the preparation was placed. The third day the skin had a putrefactive odor, and numerous preparations made at this period showed many acari at different periods of development, but all of them dead. Putrefaction, therefore, leads to the death of acari as it does of worms.

**Treatment of Lupus.**—A. R. Robinson, who has found pyoktanin to be without effect in cancer and lupus (*Journal of Cut. and Gen. Urin. Diseases*) has conceived the idea that such patients should be fed with the flesh and secretions of animals not liable to tuberculosis, as fish, lobsters, etc., and the flesh and milk of goats, upon the theory that the human protoplasm takes on the molecular constitution and properties, to a large extent, of the protoplasm of the organism upon which it feeds. By this course he believes the soil may be made unfavorable for the existence in it of the bacillus of tuberculosis.

**Salol in Gonorrhœa.**—G. N. Grivtsoff (*Meditz Pribavl. k' Morsk. Sborniku*) obtains excellent results in gonorrhœa by the internal administration of salol in the dose of 1.5 gramme (in powder, with a few drops of peppermint oil to improve the flavor) three or four times a day. The effects are particularly good in acute and subacute cases. Patients who come under observation within the first four days of the affection may be cured by salol alone in from ten to fourteen days. It is advisable, however, to use simultaneously warm general baths, which accelerate the disappearance of dysuria and painful erections. In subacute forms it is sometimes useful to combine salol with cubebs. In more or less neglected cases salol should be employed in the shape of injections as well.

R. Salol. puri.....	10 grammes.
Gummi arabici.....	5.0.
Aq. dest.....	2,000.
M. ft. emulsio.	

To be injected into the urethra three or four times daily). No disagreeable effects whatever were observed.

**Antipyrin Eruption.**—Moeller (*Therapeut. Monatshefte*) describes two attacks of erythema from which he suffered after taking antipyrin (1 gramme). In a few hours the finger-joints became swollen, and the skin covering them and the backs of the hands erythematous. The lips, nostrils, auditory canals, and conjunctivæ were reddened, swollen, and somewhat painful. Patches of erythema also appeared upon the scrotum and glans penis, and upon the latter a small ulcer formed, which healed in a fortnight, leaving no scar. Another attack, similar in every respect, occurred six weeks later after another gramme dose. In spite of careful protection,

too, an ulcer again formed upon the glans. Moeller had before frequently taken antipyrin from time to time without any such effects, which could not presumably be ascribed to impure samples of the drug.—Short (*Therapeut. Monatshefte*) also reports a case of erythema affecting the same sites after a dose of antipyrin, which had been taken previously without unusual results.

**Treatment of Syphilitic Ulcers.**—V. T. Svertchkoff (*Vratch*) finds that inveterate or obstinate syphilitic ulcers of any kind are best treated as follows: The lesion should be thoroughly cleansed with a 2 per cent solution of hydrogen peroxide, then dried with absorbent cotton wool, and covered with a piece of wool soaked in a one to two mixture of carbolic acid and camphor. The dressing should be changed two or three times a day. In from three to five days the ulcer becomes cleaner, and studded all over with abundant succulent granulations. After this it should be dressed twice daily, either with a one to four mixture of aristol and vaseline oil, or with a mixture of dermatol and vaseline in equal parts, the layer being covered with a piece of mercurial plaster twice as large as the ulcer. Rapid cicatrisation ensues, the lesion healing soundly according to its size, in from fifteen to forty days from the commencement of the treatment. The author mentions that in his hands the campho-phenol mixture alone proved of great service in cases of simple ulcers, suppurating wounds, soft chancres and chancroid buboes.

**Congenital Syphilis.**—Erlenmeyer (*Der Kinderarzt*) finds that congenital syphilis may develop as late as the twelfth year, or even at a still later age. As determining causes of the appearance of symptoms at a late age he instances the onset of puberty, traumatism and febrile diseases. A woman who has borne a congenitally syphilitic child may or may not be syphilised; but immunity to syphilis is not the same condition as syphilisation. Later born children may be more severely affected than the earlier, and the appearance or non-appearance of symptoms may be related to the sex of the child. Further, the birth of a child free from syphilitic signs cannot be accepted as proof that the subsequent children will not suffer; safe conclusions on this head can only be drawn from a consideration of all the circumstances of the family his-

tory. Antisyphilitic treatment of the parents has a favorable influence on the later-born children. He considers that cerebral disease in children characterized by arrest of development on one side and convulsions, is generally due to congenital syphilis, and that the so-called cerebral palsy of children is often due to the same cause, as is also very frequently congenital epilepsy with or without idiocy.

**Dermatitis due to Opium.**—A. J. Lantz (*Meditzinskoi Obozreeniē*) reports an unusual case of idiosyncrasy to opium. A woman, aged twenty-nine, suffering from acute bronchitis, was given eight ordinary doses of Dover's powder (two to be taken daily). About eight hours after the first powder severe rigor, fever and headache came on, and the whole skin turned quite red. On the third day universal desquamation occurred. When first seen by the author (four days later) the woman looked exceedingly ill, complaining of incessant shivering, thirst, anorexia, headache, sleeplessness, and a feeling of tension all over the integuments. The entire cutaneous surface, from head to feet, was congested, dry, and covered with epidermic scales of varying size. From the body the epidermis could be detached in large sheets, while from the hands and feet it could be taken off in the shape of gloves and slippers. In four or five days the skin became pale, and the desquamation nearly ceased. The cough being still present, two 5-grain doses of Dover's powder were ordered. About seven hours after the first dose a severe rigor came on and lasted several hours; and after the second powder, the skin again became intensely congested, swollen, hot and painful, and patient complained of headache, thirst, fever, etc. Two days later general desquamation again took place. Two 5-drop doses of opium tincture (*Ph. Ross*) were again given, some time afterwards, and this was again followed by a similar train of symptoms. The woman was finally discharged well.

**White Patches in the Mouth: Syphilis and Smoking.**—Erb (*Munch. med. Woch.*) discusses the relation of these white patches (leucoma, etc.) which he calls *Plaquesnarben*, owing to their frequent connection with mucous plaques. When investigating the relation of syphilis to locomotor

ataxy, the author collected two hundred and forty such cases, only two of which occurred in women. In one hundred and fifty-four of the two hundred and forty the patches were present at the angles of the mouth alone, and in two hundred and four in other parts of the mouth as well as at the angles, whereas in only nine cases were they seen on the tongue alone. Syphilis was known to have occurred in one hundred and ninety-one of the two hundred and forty cases. Of the remaining forty-nine, twenty-one could not certainly be said never to have had syphilis, eight had scars on the tibiae and other signs, though they denied syphilis, and six had either spinal myosis or tabes dorsalis. Thus, in four-fifths of the cases syphilis was present, and in four or five the patches disappeared under anti-syphilitic treatment. In one-tenth to one-fifth of these cases there was no history of syphilis. In regard to smoking, only one hundred and forty-eight cases were investigated, forty-seven of which occurred in slight or non-smokers, and one hundred and one in moderate or heavy smokers. Of the one hundred and forty-eight cases, one hundred had had syphilis, sixty-four being heavy smokers, and thirty-six slight or non-smokers. Of the remaining forty-eight non-syphilitic cases, eleven were slight or non-smokers, but five of the eleven were doubtful in regard to syphilis. In the one hundred and forty-eight cases syphilis was present alone in thirty-six, smoking alone in thirty-seven, syphilis and smoking together in sixty-four and neither the one nor the other in eleven. Erb concludes (1) that syphilis and smoking respectively may produce these patches about equally; (2) that generally both factors are present; (3) that the patches are very rare if both be absent; (4) that smoking alone can produce them if in great excess, and especially strong cigars; and (5) that in the presence of syphilis a much less degree of smoking suffices. The author is also inclined to admit a predisposition in the mucous membrane. If these patches occur in slight or non-smokers, and no other cause exist, syphilis is nearly certain to be present. In moderate smokers a suspicion of syphilis raised by other symptoms is strengthened, and treatment should be adopted. In the case of heavy smokers much caution is needed in drawing conclusions.

O-D.

### Excerpts from Russian and Polish Literature.

**Tar-Water in Asiatic Cholera.**—Dr. A. A. Polubinsky, of Omsk, Siberia, says (*Proceedings of the Omsk Medical Society*, Nov. 9, 1892, p. 94), that during the recent epidemic of Asiatic Cholera, he frequently resorted to tar-water (*aqua picis*), administering it both internally and in the form of enemata. He remained well satisfied with its effects, the remedy inhibiting intense vomiting and diarrhoea, and improving the patient's subjective state.

[The *aqua picis vel aqua picea Ph. Ross.*, is prepared in the following manner: One part of *pix liquida betulæ* is first thoroughly purified by energetically shaking with 10 parts of ordinary water, the latter is then decanted and thrown away, while the tar is again poured over with 30 parts of ordinary water and left to stand at the room temperature for eight days, the vessel being shaken many times daily. The infusion is then filtered, etc.—*Reporter*].

**Belladonna in Strangulated Hernia.**—Dr. V. B. Zagorsky (*Meditsinskoië Obozrenië*, No. 23, 1892, p. 1074), relates five consecutive cases of incarcerated rupture in which he obtained brilliant results from the internal use of belladonna extract in  $\frac{1}{4}$ -grain doses, repeated hourly. One of the cases referred to had an umbilical hernia of the size of an infantile head, the strangulation having lasted twenty-four hours, and the integuments over the swelling being livid and ulcerated. Other two patients had a left-sided inguinal hernia similarly as large as a child's head, while the remaining two had a right-sided one of the size of an orange. In all, there had been present vomiting, collapse and a weak and accelerated pulse; in all, the usual measures had failed to obtain the reduction; and in all, a spontaneous reduction took place after from four to six doses of the extract. The striking effects of belladonna are attributed by the author to its antispasmodic properties.

**Benzin in Itch.**—Dr. S. I. Snegürsky, of Riga, draws attention (*Medizinskoië Obozrenië*, No. 23, 1892, p. 1074), to the excellent services obtained from benzin (*benzinum petrolei*) in scabies complicated with eczema. The author tried the remedy in eight consecutive cases, applying it either *per se*, or in

combination with fats (in equal parts). In the former case the affected areas were previously treated with a piece of cloth until the appearance of redness, after which benzin was freely rubbed in. In a pure state the remedy destroys the scabies parasites very quickly; when used in combination with fats, it rapidly cures eczema, but its parasiticide action proves to be somewhat more slow.

**Concerning Disinfection of Banknotes.**—According to the *Jurnal Russkaho Obshtchestva Okhranenia Narodnaho Zdravie* (Journal of the Russian Society for Protection of National Health), No. 10, 1892, p. 756, the Roumanian Government has recently issued an order to the effect that all banknotes sent to the country from cholera-stricken localities are to be subjected to disinfection with a carbolic solution. The practice has shown that Russian, German, French and Servian banknotes do not undergo any discoloration even when treated by a ten per cent solution of carbolic acid. Meanwhile, the Austrian and Italian lose their color, and ultimately transform into worthless bits of white paper, even when they come in contact with a six per cent solution of the drug.

**Hairpin in the Female Bladder.**—In the *Gazeta Lekarska*, No. 40, 1892, p. 856, Dr. Maksymilijan Warszawski, of Warsaw, contributes a case of a girl, aged twenty-one, who was admitted to a local infirmary on account of severe cystitis with painful micturition and a turbid, purulent and blood-stained urine. According to the patient's naively concocted story, the disease developed, "after a hairpin had been pushed into her bladder by somebody (*Przez Kogos'*) during her sleep, about four weeks previously." The hymen proved to be intact, but very flabby and yielding, the orifice easily admitting a forefinger. Vaginal examination actually elicited the presence of the aforesaid foreign body which lay into the bladder transversely, the pin-bend pointing to the left. Pressure through the anterior vaginal wall, and introduction of a catheter gave rise to intense pain. The patient being brought under the influence of chloroform, several superficial incisions were made along the periphery of the outer orifice of the urethra, and the latter dilated by passing Simon's sounds of different sizes, until it allowed the introduction of a forefinger. Having reached the pin's bend, the surgeon caught it with his

nail, and without any difficulty succeeded in extracting the foreign body which was found to be covered with mighty incrustations. The after-treatment consisted in washing out the bladder (immediately after the extraction) with a tepid two per cent solution of boracic acid, internal administration of salicylate of soda, warm baths and subsequently vesical injections of a 0.5 per mille solution of nitrate of silver. In about eight days after the cystitis gradually subsided. When seen some time after her discharge, the young girl still continued to complain of incontinence of urine.

**Bilberry in Diarrhœa.**—In the Russian popular medicine the bilberry (*Vaccinium Myrtillus*; Russ. *Tchernika*) has been enjoying a first-class reputation as an antidiarrhœal remedy from time immemorial. In the Russian scientific literature, the berries have been first recommended by Dr. Seidel in the *Drug Zdravia*, 1837, p. 172, and later on by Dr. Reipolsky, *ibid.* 1845, No. 1. Recently the simple, cheap and harmless popular remedy was especially eulogized by Dr. M. I. Galanin (in his admirable book "*Letters to Mothers*," 1891, St. Petersburg), Hubert, Fiedelmann and Prof. Winternitz, of Vienna. At present Dr. Dmitry P. Nikolsky, house physician to the Nevskaja Fabritchnaia Bolnitsa, (Neva Factory Hospital), in St. Petersburg, most emphatically confirms (*Vratch* No. 49, 1892, p. 1235) his predecessor's statements, his conclusions being drawn from thirty hospital and a number of out-door cases of acute, subacute and chronic gastric, intestinal and gastro-intestinal catarrhs in patients of both sexes, and of different ages. As a rule, he uses a decoction prepared *ex tempore* in the following manner: having duly sorted and washed out dried bilberries, he puts them in an earthen sougran, pours over cold water in the proportion of one or two fl. lb. to each four or six ounces of the berries, and boils the whole for from one to one and a half hours, or until there remains from two-thirds to three-fourths of the original amount of the fluid. After the decoction has cooled down, it is percolated through a piece of muslin or linen, and administered in the daily dose of two, three or more tumblerfuls, according to the patient's age and the intensity of the disease. In out-door cases (as well as in those of patients recovering from Asiatic cholera and other acute diseases), he also em-

ployed the bilberry in the shape of a *kisel*, i. e., a kind of jelly. The results were uniformly excellent; pain, teuesmus and tympanites disappeared within a couple of days; simultaneously the tongue became cleaner, the appetite returned, the subjective state greatly improved, stools rapidly decreased in frequency and assumed firmer consistence, and in from three to five days diarrhœa ceased altogether.

VALERIUS IDELSON, M. D.

Berne, Switzerland.

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### Book Reviews.

**Manual of Practical Medical and Physiological Chemistry.** By CHARLES E. PELLEW, E. M. Large 8vo. pp. 314, illustrated. [New York: D. Appleton & Co. 1892. St. Louis: Jno. L. Boland & Co. Price, \$2.50.]

Several years ago the reviewer of this book found himself appointed to the chair of chemistry in a local Medical College. Having, prior to that, been engaged in giving private instruction in chemistry to advanced medical students, he had formed a very decided opinion as to what should constitute a course of chemistry under the then prevailing American system of teaching medicine, where the entire course of instruction, embracing anatomy, physiology, chemistry, *materia medica* and therapeutics, surgery, midwifery and the whole list of "ologies" was limited to two, or at most, three terms, of less than six months each. As then arranged in the great body of American colleges, the entire amount of time that could be devoted to chemistry, pharmacy and *materia medica* was about sixty hours. In some rare cases (the three-term schools) this was stretched to ninety hours, of which chemistry was given one-third. Some few of the younger men had learned a little elementary chemistry at school or in the academy, but the great majority of them were absolutely and totally ignorant, even of the meaning and scope of the word 'chemistry.' It was to them a dark, mysterious and uninviting field, which they entered simply because it was down in the catalogue of the school as an obligatory study.

Under such circumstances, the writer sought in vain for a text-book that he might put into the hands of the students, and was reduced to the necessity of devising a course, which in the thirty hours at his disposal, should give the young men some conception of the outlines of medical chemistry.

The identical problem was presented to the author of the work now before us. "During the summer of 1887," says he,

"the author, who had recently been appointed to take charge of the new chemical laboratory of the College of Physicians and Surgeons (New York), in company with Prof. C. F. Chandler, visited or interrogated most of the leading medical colleges in this country and abroad, with a view to determine the course of practical chemical instruction to be adopted for the coming term. It was found that in every case where the practical instruction given was more than merely urine analysis, with sometimes a little toxicology, it consisted of a regular course of qualitative, and perhaps some quantitative, analogies. This method, *it was decided not to adopt*. There seemed to be too much pure chemistry and too little medicine in such a course for students who were studying to be physicians and not chemists. So, with the advice and assistance of Dr. Chandler, a course was prepared, limited by the size of the laboratory and the length of the term to thirty lessons, in which, as far as possible, every subject and every test had some bearing upon the students' other work.

The conclusion *not* to adopt the usual laboratory work of the college catalogues was reached by the reviewer also, but the solution of the problem reached by him was, probably for the reasons that he lacked the advice of so practical a teacher as Dr. Chandler, not the same. He determined to give the class placed under his charge a practical knowledge of the atomic theory, and the fundamental laws of elementary chemistry, feeling assured that if once these principles could be gotten into the heads of the students, those of them who had in the slightest degree that love of the study of nature's laws, which should be the leading characteristic of the true physician, would pursue the study of their own accord.

While the experiment was, to a certain extent, a success, the writer does not hesitate to say, after carefully examining the manual of Prof. Pellew, that the solution reached by the latter is eminently more practical and will achieve far better results than his own.

The book is an abrupt and radical departure from all old methods of imparting chemical instruction—so radical and abrupt indeed, that it deserves to be called a "manual of chemistry as applied to medicine," rather than a manual of medical chemistry. The very introduction illustrates this. The subject is the carbo-hydrates, and here is the way the medical student is introduced to them:

"The name carbo-hydrate has been given to a very important series of proximate principles, found chiefly in the vegetable kingdom, where they compose the greater bulk of the plant tissue, but also found in smaller quantities in the animal kingdom."

The carbo-hydrates contain no nitrogen—only carbon, hydrogen and oxygen. As the name signifies, the last two are in

the proportion to form water. There are, however, many substances of a similar composition  $C_m H_n O_n$ , such as acetic acid,  $C_2 H_4 O_2$ , lactic acid,  $C_3 H_6 O_3$ , pyrogallie acid,  $C_6 H_6 O_3$ , and others which have nothing else in common with this group, etc., etc.

The author then proceeds to give the conditions which a substance must fulfill in order to belong to the class carbo-hydrates.

It is manifest, of course, that were the book intended as a manual for self-instruction, all this would be absolutely unintelligible to the ordinary medical student. Such is not the case, however. The book is to be used in connection with the explanations of the teacher, given in the progress of the lecture, and illustrated by experimentation with the glucoses, sugars and polysaccharides. The students are thus made at once practically acquainted with these important groups, and their relation to man in health and disease.

We have not the space to follow the author further, but we desire to express our hearty agreement with the author, and appreciation of his methods. The microscope plays an important part throughout the course of lesions, and the microscopical appearances of the substances treated of are admirably given. This is especially true of the sections devoted to the blood and urine, which constitute a very important portion of the work.

The merely mechanical portion of the work, the paper, printing and binding, leave nothing to be desired. The paper is heavy and fine, and the type clean and sharp, and of a good size. Blank leaves for notes have been liberally intercalated through the book.

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### Literary Notes.

**Books Received.**—The following books have been received and will be reviewed in due course of time.

**Fermentation, Infection and Immunity. A New Theory of the Processes,** by J. W. McLaughlin, M. D. 8vo. pp. 240. [Austin, Tex.: Eugene von Boeckmann, printer. 1892. Price \$2.50.]

**A Hand-book of Pathological Anatomy and Histology with an Introductory Section on Post-Mortem Examinations and the Methods of Preserving and Examining Diseased Tissues,** by Francis Delafield, M. D., LL.D., and T. Mitchell Prudden, M. D. 8vo. pp. 715. Fourth Edition. Illustrated by 300 Wood Engravings, printed in black and colors. [New York: William Wood & Company. 1892.]

**Syphilis and the Nervous System.** Being a Revised Reprint of the Lettsomian Lectures for 1890, delivered before the Medical Society of London, by W. R. Gowers, M.D., F. R. C. P., F. R. S. 12mo. pp. 131. [Philadelphia: P. Blakiston, Son & Co. 1892. Price, \$1.00.

**A Manual of Clinical Ophthalmology**, by Howard S. Hansell, M. D., and James H. Bell, M. D. 12mo. pp. 231. With 120 Illustrations. [Philadelphia: P. Blakiston, Son & Co. 1892. Price, \$1.75.

**Human Embryology.** By Charles Sedgwick Minot. Large 8 vo., pp. 815, with 463 illustrations. [New York: William Wood and Company, 1892.

**Hygienic Measures in Relation to Infectious Diseases**, comprising in condensed form information as to the cause and mode of spreading of certain Diseases, the preventive measures that should be resorted to, isolation, disinfection, etc. By George H. F. Nuttall, M. D., Ph. D. [New York and London: G. P. Putnam's Sons, 1893.

**Notes on the Newer Remedies**, their therapeutic applications and modes of administration. By David Cerna, M. D., Ph. D.; 12-mo., pp. 177. [Philadelphia: W. B. Saunders, 1893. Price, \$1.25.

**Diseases of Children.** A Manual for Students and Practitioners, by C. Alexander Rhodes, M. D. Students' Quiz Series. 12mo., pp. 155. [Philadelphia: Lea Brothers & Co., 1892. Price, \$1.00.

**Fissure of the Anus and Fistula in Ano**, by Lewis H. Adler, Jr., M.D. Physician's Leisure Library. 12mo., pp. 78. [Detroit: George S. Davis, 1892. Price, 25 cents.

**The Anatomy of the Peritonæum**, by Franklin Dexter, M. D. 12mo., pp. 86. With thirty-eight Illustrations. [New York: D. Appleton & Company, 1892. St. Louis: Jno. L. Boland Book and Stationary Co. Price, \$1.50.

**Manual of Practical, Medical and Physiological Chemistry**, by Charles E. Pellew, E. M. 8vo. pp. 314. With Illustrations. [New York: D. Appleton and Company, 1892. St. Louis: Jno. Boland Book and Stationary Co. Price, \$2.50.

**A Manual of Bacteriology**, by George M. Sternberg, M. D. 8vo., pp. 886. Illustrated by Heliotypes and Chromo-Lithographic Plates and two hundred and sixty-eight Engravings. [New York: William Wood & Co., 1892.

**Physiology**, A Manual for Students and Practitioners, by Frederick A. Manning, M. D. Students' Quiz Series. 12mo., pp. 213. [Philadelphia: Lea Brothers & Co., 1892. Price, \$1.00.

**Diseases of the Eye, Ear, Throat and Nose**, by Frank E. Miller, M. D., James P. McEvoy, M. D., and John E. Weeks,

M. D. Students' Quiz Series. 12mo., pp. 218. With eighty-nine Illustrations and two plates. [Philadelphia: Lea Brothers & Co., 1892. Price, \$1.00.

A Treatise on Diseases of the Rectum, Anus, and Sigmoid Flexure, by Joseph M. Mathews, M. D. 8vo., pp. 537. With six Chromo-Lithographs and numerous Illustrations. [New York: D. Appleton and Company, 1892.

Text-Book of Ophthalmology, by Dr. Ernest Fuchs. Authorized Translation from the Second Enlarged and Improved German Edition, by A. Duane, M. D. 8vo., pp. 788. With numerous Illustrations. [New York: D. Appleton & Co., 1892.

Fissure of the Anus and Fistula in Ano are certainly affections deserving of more than a perfunctory study. In a late number of the *Physician's Leisure Library*, published by Geo. S. Davis, of Detroit, Dr. Lewis H. Adler, Jr., gives a succinct but intelligent review of these conditions. Those who cannot devote the time to larger works on rectal diseases should certainly obtain the booklet before us, as they will profit by its good advice, and learn much that will prove profitable. Its low price—25 cents—places it within the reach of all.

Anatomy is the corner-stone of that magnificent structure, known as medicine, and a thorough knowledge of this subject is certainly as essential to the physician as it is to the surgeon. Among the more modern manuals on this subject is that issued by Lea Brothers & Co., Philadelphia, as a number of their Students' Quiz Series. The number before us constitutes a double volume of 376 pages, and the manner in which the subject is presented certainly reflects credit upon its authors, Drs. Fred. J. Brockway and A. O'Malley. Although the matter is condensed, it is very thorough in scope. One point to which we desire to direct especial attention, and in which many of the larger works on anatomy are sorely deficient, is that the more modern discoveries are given in the book before us. This should serve to recommend it to favorable consideration. The price of this handy and useful little book is \$1.75.

Diseases of Children is the subject considered by Dr. E. Alexander Rhodes, in a recent number of the Students' Quiz Series. A brief summary of the diseases peculiar to infancy and childhood is presented by the author, this being preceded by general considerations on the anatomy and physiology, as well as the development, of the child. The manner of making an examination is well described, as well as the care and feeding. A thorough study of this manual will place the student in a position to not only appreciate larger works on pediatrics, but also enable him to retain the facts presented. Lea Brothers & Co., Philadelphia, publish this little volume at the price of \$1.00.

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## Original Communications.

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**HYPNOTISM.** BY **HIRAM CHRISTOPHER, M. D.** Professor of Chemistry, Toxicology and Urinalysis, and Lecturer on Medical Jurisprudence, Ensworth Medical College and Hospital; Editor of *St. Joseph Medical Herald*, St. Joseph, Mo.

Hypnotism is a word of Greek extraction, intended to designate a state or condition of the body which resembles sleep. The state is not a true sleep, but a condition of consciousness, which renders the person oblivious to external things, and so completely as to render the party also insensible to pain. Because of this fact, it has been employed in surgery instead of the usual anaesthetics, and with a like result, the surgeons having no conception of the nature of the agent. It is a state or condition in which the subject is put by certain manipulations on the part of an operator, one who seems to possess a power which no one has yet described, who has employed the hypnotic state for surgical purposes. There is one thing, however, which seems not to have been sufficiently impressed upon them to excite inquiry as to the reason, and that is, that sometimes the party hypnotized is with difficulty restored to consciousness. In this, it has seemed to threaten danger, and this fact has led to prohibitive legislation. This fact further shows that the hypnotic power possessed by an individual is not his own, so far as to be completely and fully

under his control, and hence is not a normal power of the human organism.

Hypnotism is not regarded by those who have seriously and thoughtfully considered its phenomena as essentially the same as mesmerism, which may be regarded as a general term covering all such phenomena, whether physical or psychical. It is therefore but a phase of the mesmeric force, whatever that may be, as we shall see in the sequel.

Among the phenomena of this force which men have exhibited with persons in the so-called mesmeric state, the hypnotic was generally first produced, and to the degree of rendering the person mesmerized insensible to pain, and sometimes hyperæsthetic, the one state following the other according to the manipulations of the operator. While in this state, a subject has been made to exhibit, at the pleasure of the operator, either pleasure or disgust toward the same object by making that object appear to the mesmerized either pleasing or disgusting.

When other and different phenomena were exhibited by a mesmerized subject, such as clairvoyance in its various phases, the mystery and wonder attaching to the whole subject of mesmerism were greatly increased, and excited in the curious a corresponding interest and increased experimentation. Following closely on the phenomena of clairvoyance, some of which were remarkable and wonderful in the extreme, such as the reading of a number of a watch while closed and held above the head of the blindfolded clairvoyant, which was not known even by the owner of the watch, came the moving of tables, rapping on tables, and the involuntary writing by persons called mediums, which writing was generally in the form of answers to questions asked by some one present. These things led to the belief that the spirits of departed friends, relatives, or others were present and holding converse with the living. Then mesmerism took the name of spiritualism, by which was meant that the living and the dead could and did hold converse with each other. Thenceforth, messages passed from the dead to the living, and were held as of the nature of a revelation from beings who had come into the possession of knowledge not attainable in this life. This belief still prevails to no small extent, and is maintained almost, if not quite, unanimously by the more orthodox of spiritualists.

In addition to many strange and wonderful phenomena, great feats of strength, and in apparently impossible ways, were exhibited in the presence of witnesses whose veracity was unquestionable; such as the raising of tables through a medium who only touched the object raised with the hand. Beds were also raised while several persons sat on them. Tables were made to stand tilted by merely holding the hand on them. The force exerted was oftentimes beyond the combined strength of all the persons present. All such phenomena were ascribed to spirits by the spiritualists, without stopping to inquire what such a belief involved.

Later, phenomena took a different range. There are now more of the mental than the physical. To clairvoyance, which is clear seeing, have been added telepathy, or mind reading, and mental suggestion. By the former is meant the communication of thoughts and feeling and the impartation of the knowledge of events between persons many miles apart; and by the latter, that an operator can control the will and actions of an impressed subject by simply willing that the subject shall do this or that. Volumes have been written detailing cases of this kind, some of them exceedingly strange and startling. Yet such phenomena are no more strange and wonderful than the feats of physical strength, nor any more mysterious and inexplicable. They confound and bewilder both operator and spectator, and well they may, for science holds no solution of these phenomena. They might be less insoluble if we knew the cause—if, indeed, we should agree with the spiritualists, that all such phenomena have spirits as their cause. The astronomer Camille Flammarion, of Paris, and the Rev. M. J. Savage, of Boston, have been worrying with some of these mesmeric phenomena and the problems which they create, in the *Arena*; but have not given its readers any solution beyond apparently endorsing the suggestion of a universally diffused mind or psychical entity filling all space, affecting all psychical beings such as man, and serving as a medium of influence or transmission; something after the order of the supposed universal ether which serves for the transmission of light vibrations, the psychic ether having its vibrations which are adapted to the transmission of psychic influences. The theory shows to what straits "science" is put to account for phenomena which do not lie within the limits which scientists have pre-

scribed for it. It seems to be an hypothesis of the last resort, which failing, as it surely will, leaves the matter, so far as scientists are concerned, as yet an unsolved enigma. Such investigators dig in the darkness of excluded light. They have a Herculean faith in the powers of science to solve any mystery that may attach to any phenomenon, and of whatever kind, but none for the supernatural. But science will never be able to show that the raising of bodies of great weight, without the use of any mechanical force, or instrument, is according to what it esteems and calls natural law. Such a phenomenon is without its field. It may be according to laws that lie outside of mechanical; but it certainly can not be explained by any known physical law, such as science is conversant with, and in accordance with scientific principles to which scientists hold.

While men continue to close their eyes to the only source of light the world has on the subject under consideration, they can never reach any satisfactory conclusion respecting the real and only cause of mesmeric or spiritualistic phenomena. They certainly have a cause, and an adequate one, and our enlightened reason will attest what this source of light proclaims.

In this investigation, we accept the principal and leading facts which have been reported from time to time, as true and real, and not imagined or fabricated. Their verity can not in reason be doubted. If they were not substantiated by unimpeachable testimony, we should still be disposed to accept them from the knowledge we have independent of human testimony. We have no personal knowledge of any phase of this subject beyond that of the unconscious mesmeric state induced by certain manipulations of an operator, and the conscious state of clairvoyant. The physical phenomena we have never witnessed; but accept them as unhesitatingly as though we had, and for reasons which will appear as we proceed.

How then were tables and beds, with persons on them, raised from the floor and lowered again without the application of any visible means? What and whence that power?

When force is traced by means of its phenomena to a competent and adequate cause, near or remote, we find the primary source to be the will of a psychical being. In such a being resides the power that, acting on matter and by means of matter, produces physical phenomena, such as we see in the changes

which matter undergoes, whether as respects change of position or composition. The forces that occasion these changes, science knows nothing of, and seeks not to know beyond the most palpable and the proximate. The movements of the planets, science can trace and describe, but it does not essay to tell how they got into motion, or how they keep in motion. Yet in their movements we have a most wonderful phenomenon, whose cause science has never sought to discover. If we ask, why? we have the answer that such an inquiry is not within the province of science. And why not? If science sought the cause of no phenomena, it would be, at least, consistent; but it discourages learnedly on the power and laws of gravitation, while it has nothing to say of the propulsive power that put them in motion.

But our reason is not silent, nor ignorant. It knows that phenomena have adequate causes; and when it sees such stupendous masses of matter moving in space with no apparent force causing that motion, it rises above the fears of science, and plunges at once into the depths of the Infinite, and there finds a power competent to move all cosmic masses, prescribe their orbits, and hold them fixed in their limitations. It holds that there must be one Primary Cause, itself uncaused, and it has the highest corroborative evidence testifying to the correctness of its conclusion. It, moreover, declares that the one Primary Cause is an intelligent being, whose existence is eternal and whose attributes are infinite; an hypothesis competent to the satisfactory explanation of all phenomena, both psychical and physical.

The power that moves our body or any part of it, as an instrument, and by means of which it is applied to external objects, as when we lift, or throw a body, proceeds from our will. We will the act, but must use instruments to do what the will determines. Its power is limited in its exertion by the instrument. This is a matter of conscious knowledge. Force, therefore, in psychic beings, has its source in the will. By an experiment, we may illustrate the movement of a planet. A cord attached to a ball and held in the hand will represent the force of gravitation, while the power of our arm will represent the propulsive force exerted on the planet, when the ball is made to move in a circle. In the motion of the cosmic masses, both the propulsive and attractive forces proceed from the exertion of the one will. Here we have no instruments of application inter-

vening between the power exerted and the object acted on. We note this fact with emphasis, because it shows that force can move matter without the intervention of an instrument of application.

A more palpable example we have in a case in which both the actor and the object were perceptible to the senses. A sudden storm swept down on the sea of Gallilee, and threatened destruction to the boat and those in it. He was asleep at the time, and on being awakened, stilled both wind and waves by the gentle words: "Peace, be still." The power then exerted was supernatural in that it controlled natural forces; but the power was applied without the intervention of a material instrument. We know that wind and wave subside in accordance with the normal operation of force on matter. But in the above instance the power of will operated directly on matter.

Such power we are accustomed to regard as divine and infinite, in contradistinction to that which is human and finite. But we know not what power the human will possesses and can exert, when not clogged by a self-limited instrument. Will is an attribute of spirit, and the extent of the power of an individual spirit corresponds, we may believe, with the finiteness of the spirit-being. What the inherent power of such a being is, we may, possibly, gain some knowledge of from certain facts in human history, hereafter to be noted.

Science, as explained by its teachers and cultivators, knows nothing of spirit or psychic beings but those whose existence is recognizable by the senses. If there be no other psychic beings than those that science investigates, then its field is limited to the so-called physical forces of nature, and hence not a few phenomena, occurring in the history of the race, can be assigned to no cause which scientists are willing to recognize as legitimate. Hence such phenomena must be assigned to the category of the unknowable, and their cause left undetermined after the most protracted and exhaustive research by scientific methods.

Facts are stubborn things even for the learned scientists. They can not occur or exist without an adequate cause. When the attempt is made to determine the cause of the facts which spiritism, or mesmerism, or whatever may be taken to designate the phenomena, by scientific methods, failure thus far has rewarded the labor of the investigators, and will ever so do,

because the solution lies in the supernatural, and not in the natural, which is the province of science. If a man be allowed the possession of a spirit-being whose existence will not terminate on the death of his body, the fact proves the existence of the supernatural and the limit of the natural. In the presence of the supernatural so-called science stands dumb and confounded.

It is a supernatural phenomenon if matter is moved without the application of a natural force. This is what is seen in what some call *occultism*, under which are included the phenomena of spiritualism, mesmerism, human magnetism, hypnotism, materialization, *et id omne genus*.

We have said that we accept the facts of "occultism" which have been assured to us by competent and reliable testimony, and particularly that which underlies them all, and makes all the varied and wonderful phenomena a consistent whole. We accord our belief to this fundamental fact because it is a very old one, varied in its phenomena by, possibly, such as have never before been witnessed. But even novelty in phenomena can not be affirmed, because we have not a full history of this power. The fundamental fact that may be nearly as old as the race, is the communion of the living with the dead by recognized means of intelligent intercourse. This is the belief of all spiritists, and their belief not only rests on a fact, but finds in the fact a satisfactory explanation of the phenomena witnessed. Let us endeavor to see what is known of this fact, viz.: the intelligent intercourse of the living with the dead, but once living on the earth, now living in the unseen world in a disembodied state; embodied spirit-beings communicating with disembodied spirit-beings, both human.

Our information on this subject is from a perfectly reliable source, is ample and satisfactory, though not at all scientific in the ordinary acceptance of the word. It is all the better for that, because science is fallible; this infallible.

In the oldest law given to men, of which we have a reliable knowledge, it is commanded that one who consults the dead or "familiar spirits" should be put to death. "Thou shalt not suffer a witch to live." A witch was a woman who consulted familiar spirits, who held intercourse with or inquired of the dead; and a wizard was a man who did the same. But women were the chief offenders, as they are now the principal mediums, and

always because the more approachable and the more readily "possessed." There were such persons and practices in every century of the Jewish race, before the date of the current era; and they seem to have been especially numerous in the first century of the Christian era. The same was the case with the land of Canaan before the time of Joshua, and constituted one of the reasons for which the inhabitants were dispossessed by the Jews.

Now, it is an axiom of reason that no wise and intelligent law-giver, much less the divine being, would enact a law against what does not exist, either *in esse* or *in posse*. Therefore, as we find a law given by the creator, we must accept the existence of its object as beyond question, since he is omniscient. The fact of possession finds corroboration in what is said on the subject in the four gospels. Men and women, and even children, presented in those days what was called "possession," by which was meant that the living were taken possession of by beings called demons, or unclean or wicked spirits, and were controlled by them at the will of the possessor. Different effects resulted to the possessed—sometimes they were dumb, sometimes epileptic, sometimes insane, sometimes deformed. These had the form of disease, but were not diseases from morbid causes. Disease, as leprosy, was *cured*, but demoniacal possession was *destroyed* by driving out the spirit, which was followed by the normal state. The dumb spoke, the lunatic became sane, and whatever effect followed possession disappeared on the expulsion of the unclean spirit. These facts to the reader of the four gospels are very familiar things; only it is the few who read closely enough to understand "wherefore he reads."

When we come to know and understand that demons or unclean spirits, of the gospels, are the spirits of dead wicked men, we can appreciate the force of the meaning, and the pertinency of the use of the word demon, applied to the disembodied spirits of the wicked in this life; a *knowing one*. With the Greeks there were both good and bad demons, but both spirits of dead men; in the gospels they are all wicked. When possessing the bodies of men and women, the demons gave rise to morbid phenomena; when they are simply consulted, they impart information; but when they become familiar and do wondrously, they tip and rap tables and exhibit wondrous feats of physical strength. It is through their agency that every phase of mental suggestion takes

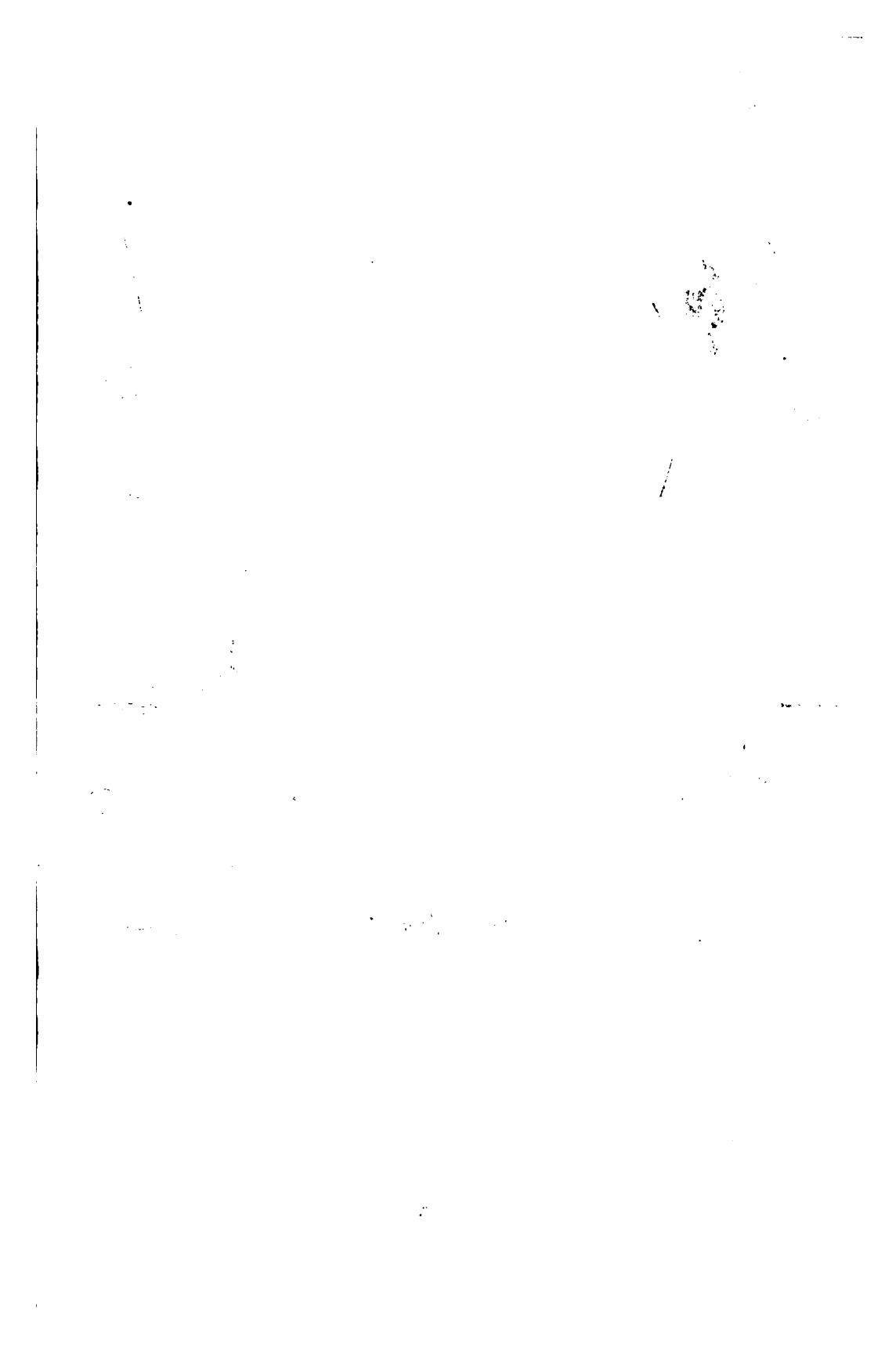
place; and by them that objects are transmitted through space. That objects pass from point to point in space without the intervention of a visible agency, is attested by competent and reliable witnesses. Bedding has been seen to be torn without visible hands, and objects pass from table to mantel by the same invisible means. All such facts are accepted as true, because substantiated by eye-witnesses not in league with "circles," or operators. The matter of chief interest is, can an adequate cause for such phenomena be found?

Two conclusions may be accepted as satisfactory: The agent or force operating to produce these phenomena is no force known to science. The force is not human; that is, of the human organism. It is, therefore, supernatural and from the sphere of the supernatural, that which lies beyond the seen. This being so, there is no possible way of obtaining any correct knowledge as respects the cause of these phenomena, but to have recourse to our primary source of information. From this source we know that disembodied human spirits have not only been consulted by the living, but that they have also entered into men and women, and taken possession of their persons to the injury of the individual, producing conditions resembling disease, and in some cases giving to the possessed superhuman strength. The phenomena which they produce in these modern times appear novel and without precedent; but this is no more than might have been anticipated after we had knowledge of their cause. Intelligent beings can vary their work and action at will, and adapt means to ends, modifying old methods or introducing new ones, when the new accomplish their purpose the more certainly and effectively. "Surely in vain is the net spread in sight of any bird." A spirit-being loses none of its attributes and powers on becoming disembodied. On the contrary, we should naturally suppose that it resumes all that was limited by the animal organism it possessed in this life. The limitations which are placed on the powers of a spirit-being, by a material organism, cannot be even conjectured. We know, however, that they are very great, since, under possession, the strength of the organism is greatly increased, as in the case of the man in Gadara, who was able to break the chains with which he was bound. Yet even in such a case, the power possessed by the spirit-being was limited by the strength of the tissues of the organism. The full strength of

their power can be exhibited only when they act on pure matter. In the phenomena of moving objects, or suspending them in space, there is no "possession," but simply the exhibition of wonderful phenomena, such as have been authenticated to the public by eye-witnesses. These have excited, in the mind of all who have witnessed or who credit them on testimony, the question as to their cause; and we submit that the hypothesis of spirit agency is one that fully accounts for, and explains every phenomenon yet reported.

When human beings die—when the animal organism perishes in death—the spirit thenceforth is no longer of the order of human beings, but becomes like the order of angels of the Unseen World, and of that order. This is not a matter of conjecture, but of imparted knowledge, and as veritable and reliable as the truth that the dead live beyond the grave. Now, as men and women become of the rank of angels after death, the conclusion is not strained that holds that they are of like power. Of the strength of such beings we know only that it is great, bordering on the omnipotent. The race has felt something of their power. One swept over Egypt at midnight, and the first born of man and beast lay dead in home and field. Another passed through the hosts of Assyria, as they lay at night before Jerusalem, and killed one hundred and eighty thousand in their tents. These deeds were not done by material instruments, but by the spirit power of those messengers of destruction. There is, therefore, nothing incredible or unreasonable in the supposition that disembodied spirits have like power, and can work wonders on, and with, material objects without the use of material instruments.

Of course, it will be objected to all such reasoning and evidence as this that it is not scientific. That depends. If we mean natural or physical science, then certainly it is not. Physical science knows nothing of psychic force or psychic phenomena, and can never know. Yet men presume to investigate psychic phenomena by physical methods, and call it scientific investigation! There is nothing more absurd. True science seeks to discover the cause of all phenomena. It is but the hand-maid of reason, and reason admits and accepts all accredited evidence. It declares that there can be no phenomenon without the action of force, and does not commit the folly of ascribing psychic phenomena to physical forces. It holds that



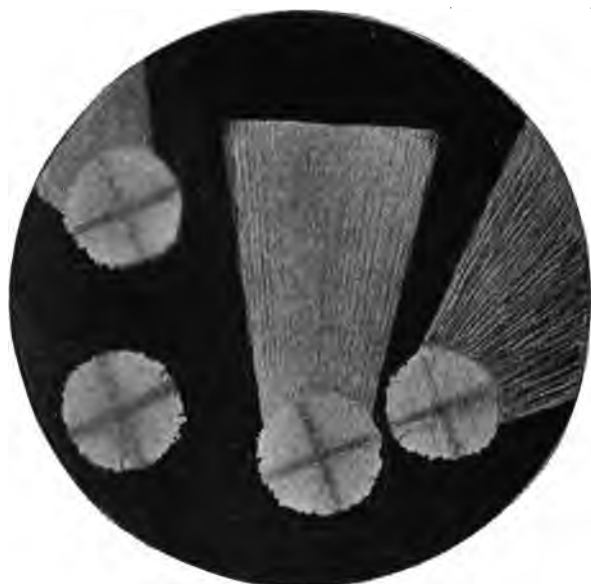


FIGURE 36.



FIGURE 37.

effects must have corresponding and homogeneous causes; and when the mind takes cognizance of unquestioned psychic phenomena, it does not seek in physical forces an adequate cause. True reason has the courage of its convictions and is not afraid to look into the mysterious, lest it discover something alarming to the hopes or fears of the individual investigator. There are no impassable lines between the seen and unseen. They are but parts of a whole. Force and matter are not one, nor are they inseparably united except in phenomena. When the body of a man is dead, the life has left it. Present, the body is living; absent, it is dead. At absolute zero, all motion of matter ceases, physical phenomena disappear, yet matter and force still exist, because indestructible. Force is immaterial, and as verily an entity as is matter. Mind is the phenomenon of reality, and as verily as motion is of force. Our reasoning can not be considered unscientific because it has passed beyond the limits of the material and natural, nor are the facts unscientific because explainable on grounds of which science knows nothing; yet not, therefore, fabulous. On the contrary, there is much that science sets forth as true that is only hypothesis, while the grounds of our belief in the superhuman or supernatural are more firmly fixed than any accepted hypothesis of science.

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FAT CRYSTALS FROM CHAULMOOGRA OIL—A NEW FAT. By  
THOS. TAYLOR, Microscopist U. S. Department of Agriculture,  
Washington, D. C.

Figs. 36 and 37 represent the crystalline forms of a solid natural fat of the oil of chaulmoogra, procured by the freezing process. The very peculiar forms this fat assumes in crystallizing leads me to the belief that it is a new and heretofore undescribed fat.

The solid fat of the chaulmoogra oil is easily separated from the oil by freezing. The fat thus procured may be mounted in the usual manner. It should then be heated sufficiently to make it liquid and placed, quickly, under the microscope. As it cools, crystallization rapidly progresses. At first globular masses will be observed, each showing, under polarized light, a well-defined cross.

No sooner does one of these globular masses form, than a second form of crystallization takes place, proceeding from the globular accretion in an elongated spreading fan—see the microphotographic illustrations 36 and 37.

Fig. 37 illustrates a new and remarkable fat discovered by freezing a medicinal oil, and illustrates the first in order of a new series of experiments with frozen oil. This fat is extracted from the oil of chaulmoogra, and represents a system of crystallization wholly unlike that of any fat or oil I have observed. In freezing, it first appears as a crystallization of butter, but no sooner formed than it throws out from one side a broad spray of crystallized fat, having a comet-like appearance. The two cuts represent the general appearance of the crystalline forms; the entire plate, however, becomes covered with these forms. The mount when on a slip of glass 3 in. by 2 in. may be slightly heated; on cooling the same form will appear.

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ALCOHOLISM. BY W. N. KEENER, M. D., Jamesport, Mo.

The pathology of alcoholism is so imperfectly understood that a rational mode of treatment cannot be deducted therefrom; but all that I have been able to develop, and, so far as I know, all that is known concerning the treatment, has been learned empirically, and not by deducing principles of treatment hitherto unknown from known pathological conditions. I will, therefore, not attempt to give the pathology of chronic alcoholism, and follow it with a plan of treatment deducted therefrom, but will first give the plan of treatment which I have found by the experience obtained from treating a few cases to be rather successful, then give in a brief manner a few points in the way of pathology, which I consider clearly enough demonstrated to found a belief upon.

Early in 1891, my attention was called to the subject by having some personal friends addicted to the habit (or afflicted with the disease), whom I had reason to believe honestly tried to keep from drinking, but with very poor success. When I began to cast about for a means of assisting them, I was surprised at the scantiness of the literature on the subject. The profession at large evidently considered it merely a habit of excessive in-

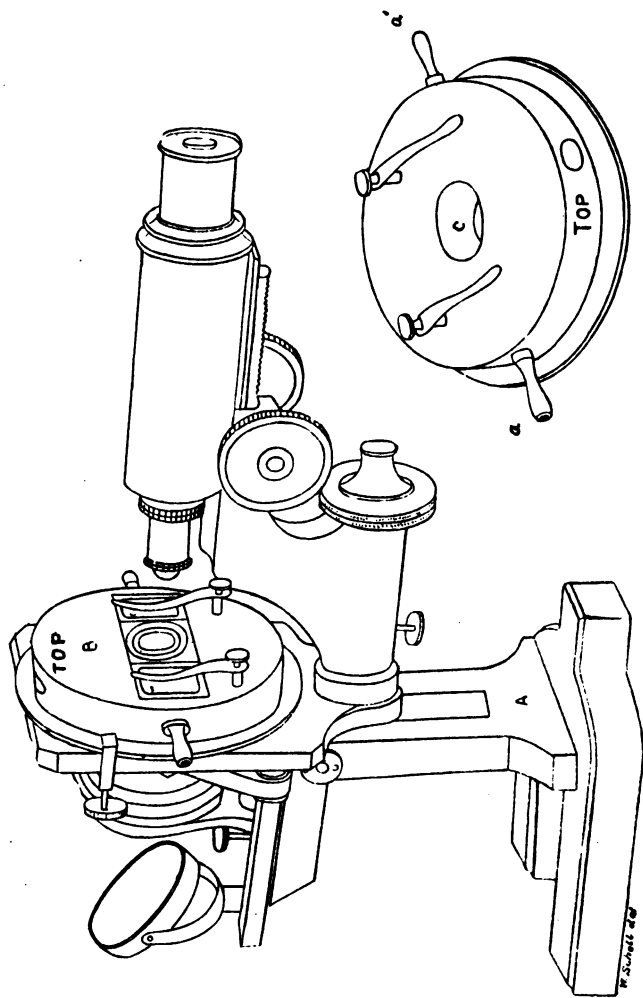


FIGURE 38.  
Illustrating the Taylor Freezing Cell.



dulgence, which could be laid down whenever the person willed to do so. I at last found, in THE ST. LOUIS MEDICAL and SURGICAL JOURNAL for May, 1889, that Dr. Sergei Jaroshevski, of St. Petersburg, had successfully treated a few cases of chronic alcoholism with hypoderinic injections of  $\frac{1}{30}$  grain of strychnia nitrate once a day.

It was not long before Case I. presented, and I had a chance to try it. I began with  $\frac{1}{30}$  grain, but finding that it had no effect, I cautiously increased the dose, and gave it four times a day, instead of once, and, to my surprise it was not until  $\frac{1}{12}$  of a grain at a dose was given that I noticed any of the physiological effects of the strychnia. I continued to experiment cautiously until in my latter cases I have used the following general plan of treatment:

R Strychniæ nitratis.....gr. ij.  
Picrotoxin.....gr. j.  
Aquæ bullient.....℥j.

M.

I use about ten minims for the first injection, and increase two or three minims each injection until some constriction about the throat, or a little dizziness is complained of after an injection (the dose will probably be up to sixteen or twenty minims), then drop back to a little smaller dose, so that it will not cause those symptoms, and hold the dose at that until the symptoms appear again, which is generally about a week or ten days, then gradually, but not too rapidly, diminish the dose until only a few minims are given, when the injections may be discontinued. I also use the following internal treatment:

R Hydrarg. chlor. cor.....gr. j. to gr. ij.  
Fld. ext. kola.....℥iss.  
Fld. ext. cactus grandifl.....℥j.  
Fld. ext. arnicæ.....℥iiss.  
Tinc. aloes soc.....℥ij.  
Tinc. cannabis ind.....℥ss.  
Aquæ.....q. s. ad. ℥iv.

M. Sig. Teaspoonful every two hours during the day.

This is continued during the whole time that the injections are used, and for a few days afterward, then a tonic of iron, quinine and strychnine in some form, perhaps with iodide of potassium, three times a day for a month. Keep the bowels open and the kidneys active. The internal treatment may, of course, be var-

ied to suit the indications. The following is a brief report of the cases which I have treated:

CASE I.—D. H. Age 56, mechanic, consulted me September 26, 1891, on account of a partial blindness which had troubled him for a few weeks, and which seemed to be growing worse. He was thoroughly intoxicated and smoking a short-stemmed pipe. He said he had been a drinker for forty-five years, and had smoked incessantly when not asleep for the greater part of that time. Tobacco and whiskey amblyopia was diagnosed, and he was advised to quit both habits at once. He claimed that he was unable to do so, so he was given the course of treatment above outlined, minus the bichloride and picrotoxin and with the addition of a little atropia to the injections. He drank a little for three days, and smoked from two to four times a day for five days after beginning treatment, when he quit both. The injections were given during a period of three weeks, and the internal treatment continued for a week longer. He had mild delirium tremens during the fourth and fifth days of treatment, which was stopped on the fifth day with a few doses of the pot. brom. and capsicum. The largest dose of strychnia given was a twelfth of a grain. Patient's eyes fully recovered during the treatment, and he remained sober for three months, when, as he said, he had a cold and took a whiskey stew for it, and immediately developed an appetite for it and drank for two weeks, when he came and begged to be treated again, and was treated for two weeks, and has ever since worked in a shop where it has been drank daily; and if he has drank any I have been unable to find it out.

CASE II.—M. M., farmer. Age 44. Irish. Been drinking some all his life, but steadily and to excess for three years. Treatment about the same as No. 1 for two weeks. The dose of the injection was increased until it sometimes made him stagger after taking it; but while his appetite for alcohol was diminished it was not destroyed, and he was given up, and continued to drink.

CASE III.—F. G. Age about 28. Blacksmith. Been drinking regularly, and often excessively for five years. Treatment the same as No. 1, continued for three weeks, the largest dose of strychnia given being a tenth of a grain. Quit drinking on the fourth day, and claims not to have used any spirits since, but I

have suspected his having been drinking some lately (ten months after treatment).

CASE IV.—J. S. Irish. Age 32. Foreman of section gang on R. R. Had been drinking to excess for over ten years. Said he had often drunk a gallon in twenty-four hours. Treatment about the same as outlined above, using the bichloride and picrotoxin, but no atropia. He was very drunk when beginning treatment, and continued to drink less each day until the third day, when he quit, and has to my certain knowledge drunk none since, it having been eleven months, and he having been associated with drinking men all the time.

CASE V.—S. B., business man. Had been drinking to excess for four years, during the last two of which he had gotten drunk each night after business hours. Drank for four days after beginning treatment, and so far as I know has drunk none since. Treatment continued three weeks. The largest dose of strychnia being a tenth of a grain.

CASE VI.—Thos. G., farmer. Age 31. Could not come to town without getting drunk, frequently remaining drunk for a week. Injections given for three weeks, and iron, quinine and strychnia given for two weeks longer. Largest dose of strychnia, a tenth of a grain. Took two drinks only after beginning treatment. Has been to town and associated with drinking men frequently, but I am sure he has never taken any spirits.

CASE VII.—J. M. Age 35. Rather deficient mentally. Common laborer. Said he had been too drunk to work for half of the time for twenty-five years. Was very drunk when the treatment was begun, and drank for four days, when he quit of his own accord. He was treated for three and a half weeks, the largest dose of strychnia being an eighth of a grain. He remained sober a week after quitting the treatment, when, during a fair, he got very drunk, and has continued to drink since, but not so much as formerly.

CASE VIII.—C. C., jeweler. Age 22. Had been drinking since a boy, and lately to such an extent that he was incapable of working at his trade. He also smoked cigarettes continuously, was very nervous and had frequent attacks of heart failure. Treatment began December 19th, 1892, and continued for four weeks, during two weeks of which time he took a seventh of a grain of nitrate of strychnia, hypodermically, four times a day.

He quit drinking on the fourth day and quit smoking on the eighth day, since which he has neither used whiskey nor tobacco, and says he has no desire for either; however, the time has not been sufficient to give him a thorough test. His nervous symptoms and functional heart trouble seem to have wholly disappeared.

All of these cases were allowed as much whiskey as they wanted, but were not encouraged to drink more than they craved. Some were allowed to buy it themselves, while others were required to come to the office and take it. All (except No. 2) quit of their own accord, and said they did not crave it any more, and were not tempted by seeing others drinking. All except Nos. 2 and 7 lost five to twenty pounds of flesh during the treatment, but two or three weeks after the treatment was discontinued began to regain, and generally continued until their former weight was reached. All were treated at home among their former associates who drank, and who made it a point to discourage them, which may account in part for the downfall of those who went back to drinking.

Why does alcohol cause an appetite for itself to be developed in the user? and, what becomes of it in the system?

Chemists are agreed that alcohol is produced wherever cell action is going on. Now the functions of the body are carried on by cell metamorphosis, which does not differ in the essential points of the action itself from that which takes place in yeast, except being more highly organized. Therefore alcohol must be constantly produced in the body. This part of the theory is strengthened by the fact that Dr. Ford has distilled alcohol from the blood and tissues of lower animals, and Dupre has found a substance exactly resembling alcohol in the urine of teetotalers. Now if alcohol is normally being manufactured in the system all the time, and is not eliminated in any considerable quantity, either as alcohol itself or as any of the products of a partial oxidation of alcohol (which will hereafter appear), it certainly undergoes a complete oxidation in the system, and it has been proven by Dr. Zimmerberg and Dr. Franz Riegel, that alcohol *taken into* the system in very small quantities produces force but not heat, it is but a natural conclusion that the alcohol *naturally produced* in the system generates force. Now if the only products of the cell action in the system is alcohol which is used to

generate force and refuse matter which is eliminated, is it not a reasonable conclusion that the alcohol so produced is the *principal* source of the force in the animal economy. Now it has been demonstrated by Ringer and Rickards, that alcohol taken into the system in large quantities decidedly lowers the body temperature, and by Binz that this lowering effect is manifested the same after section of the spinal cord, proving that the antipyretic effect takes place purely by checking tissue change, acts as the governor to the engine. When the cell action has produced alcohol to a certain amount more than is necessary for the generation for the present amount of needed force, the surplus acts to check the cell action, therefore checking its own production; and when it is required for the system to exert more force, the excess is used up until it does not furnish the restraint to the cell action, and the cell action proportionately increased, consuming more food and producing more alcohol, and consequently more force, to meet the extra demand. This diminished action of the cells in the presence of an unnatural amount of alcohol, probably takes place because of a chemical union of the surplus alcohol with the protoplasm of the cells, forming, when the proportion of alcohol in the system gets above a certain standard, a chemical compound sufficiently stable to resist, in a great measure, the natural chemical process of the cells, and to diminish the natural chemical affinity, and therefore the intensity and amount of chemical action between the cells, the diminution bearing the same proportion to the full amount of action of which the cell is capable that the amount of protoplasm that is saturated with alcohol bears to the whole amount of protoplasm in the cell. That alcohol does chemically unite with the albuminous portions of the body is proven by the fact (to which all observers agree) that when alcohol is taken into the system, the amount eliminated is extremely small as compared with the amount ingested. Prof. Wood and others account for this by saying that it is oxidized, and account for products of oxidation being absent by claiming that it goes, as it were, at one bound, from alcohol to  $\text{CO}_2$  and water; but the same observer and all others agree that the ingestion of alcohol greatly diminishes the excretion of  $\text{CO}_2$ , which seems to render the theory inconsistent. Also, I have myself experimented with alcohol and egg albumen mixing, two drachms of alcohol with

six drachms of albumen and water to make eight ounces. I would allow this mixture to stand from six to ten hours, and then make the chemical tests for alcohol, and invariably found, in several experiments, that the reaction was either entirely absent, or so feeble as to make it certain there was only a trace of the alcohol formerly put into the mixture now existing as alcohol. On standing thirty or forty hours the mixture gives a strong reaction, probably from some fermentation having taken place.

Another fact which points with some degree of reason to alcohol as the form of reserve force in the system, as the currency, as it were, of the great organization of cells, as money is the currency of a nation, is the fact that in convalescence from disease, and in other low conditions, in which the power of cell action is at the low ebb, too low in fact to furnish sufficient force to carry on the natural functions of the body, even in a state of rest, there is nothing known that will so completely relieve this condition as alcohol in some form. And if the condition is such that a temporary supply of force to start the process of digestion and circulation will, by supplying cell food, start cell action, alcohol will do a very permanent good. Such a state of things is also indicated by the fact that in these low conditions and also in a state of health, when very hard labor is being performed, very much more alcohol can be taken without injury than when the healthy body is in a state of rest. This would seem to indicate that, where the cell action does not supply sufficient of the medium of reserve force, this may be artificially supplied without impairing the activity of the cells. Now, if all this be true, when an excess of alcohol is introduced into the system it diminishes the cell action in the body by augmenting the amount of alcohol in the tissues, and, by repeated doses, the cells become so permanently saturated with alcohol, that in the absence of the artificial stimulus, there is not sufficient alcohol manufactured in the tissues to generate sufficient force to keep the vitality up to the proper standard, and so a craving for alcohol is produced, and this diminished force operates to weaken the will power, until the will becomes incapable of resisting the temptation to satisfy this craving, and thus alcoholism becomes a disease.

The indications for treatment are, to tear down and eliminate the tissue which has become saturated with alcohol, as with

mercury, aloes, etc., and to stimulate the weakened cell action while this process of elimination is going on with such drugs as strychnia, kola, arnica, etc.

I believe that the victims of alcoholism are certainly as much entitled to our attention as the victims of venereal diseases, and the fact that we offer them no aid is driving them off to quacks, who have lately been taking advantage of the opportunity, and are with one hand playing siren music to these unfortunates on a harp of (bichloride of) gold, while with the other they are taking in their lucre and administering a treatment surrounded by a veil of mystery which lends enchantment to the occasion. And we should not be too hasty in declaring that there is no good in the treatment given by these charlatans, but should remember that many good things in medicine have been discovered by quacks, and kept secret for years for the purpose of individual gain. We should not conclude, therefore that, because a man is a knave he is necessarily a fool, but when we see one claiming to have found "a feather from the bird of truth" and yet refusing to give it, to be woven into the common net by which that bird is to be finally caught, we should investigate and, if we find it true, wrest it from him and appropriate it to its proper use.

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THE DIFFERENT EFFECTS OF COCAINE MURIATE EXERCISED BY  
DIFFERENT MAKES. By J. OSBOURNE JURY, D. D. S., St.  
Louis.

As our authorities say nothing of the aphrodisiac effects of cocaine muriate, I think it would be well to call their attention, as well as that of the profession in general, to the different effects of the different preparations of this drug. To illustrate I submit the following cases:

A patient (male, æt. 27), suffering from a badly ulcerated and broken down tooth, called on me for relief, and requested that cocaine be used. The solution I had on hand being somewhat old, I decided to use some hypodermic tablets of  $\frac{1}{4}$  gr. each, the preparation of a well-known house. Having dissolved four of these tablets in twenty minims of water and injected the gum, I extracted the tooth with comparatively little pain to the patient. He then decided to have the remainder of his teeth examined,

and while waiting for the hæmorrhage to subside he complained of erotic sensations plus the local anæsthesia, which was now intensified; despite the rather profuse bleeding which had lasted about ten minutes, these sensations increased, and were accompanied by a violent priapism. He then signified his intention of visiting a female friend and relieving himself; making an engagement to have another root extracted his next trip in, he being an express messenger, he left the office. He called two days later. Having a fresh four per cent. solution of cocaine, I injected twenty minims and extracted the tooth. There was no erotic effect, no priapism, no intensified anæsthesia.

I then injected four  $\frac{1}{4}$  gr. tablets in solution in the house dog, and he exhibited pronounced aphrodisiac symptoms, but no other was noticeable.

The following day I injected twenty minims of the four per cent. solution and no noticeable effects were produced.

I then injected a  $\frac{1}{4}$  gr. tablet in my arm and followed it up in fifteen minutes with another. I noticed but slight aphrodisiac effects, and a raise in pulse from 80 to 85 per minute.

The next patient was from the clinic of the St. Louis College of Physicians and Surgeons, female, colored, about thirty-two years. I injected four  $\frac{1}{4}$  gr. tablets in solution for extraction of a tooth; this was followed by marked aphrodisiac effects, and a slight acceleration of pulse, but the anæsthetic effects were not intensified. She returned the following day and under the pretense of removing a root, I injected twenty minims of a four per cent. solution, which I obtained at the drug store that day. No aphrodisiac effects were produced, although the ordinary local anæsthesia occurred.

This will show that while one make of this drug produced a decided aphrodisiac effect, another preparation had no influence whatever in that direction, both preparations being tried on the same subject. On this account I would suggest the advisability of caution in the use of this agent, more especially in cases of young females, who are more or less peculiarly susceptible to influences of this nature, and who are among the first to ask for a local anæsthetic, they being somewhat afraid of general anæsthesia.

2901 Gamble Street.

## Correspondence.

### SHOULD THE PUBLIC BE PERMITTED TO KNOW THE NAMES OF REMEDIES PRESCRIBED BY PHYSICIANS?

Experience teaches us that in the struggle for existence it is not always wise to communicate to the world all, nor even the larger part of what knowledge we have acquired by constant and assiduous application or study. Our knowledge is our capital, on which we have to depend, in order to insure to ourselves and our families the means of earning a living. To the few whom Fortune has so favored as to place them above such considerations, the following remarks do not apply; but as they do not constitute the generality of those who enter the ranks of the profession of medicine, we will not take them into the assumed controversy.

It has been my experience, as no doubt it has been the experience of many others, that the profits of the practitioner of medicine are constantly becoming smaller and smaller, and it seems reasonable to assume that there is some cause for this alarming state of affairs.

One of the causes, and by no means the least, to which I desire to call the attention of the profession, is the reprehensible practice which obtains with an ever-increasing number of physicians, of communicating to their patients the name of the remedy or remedies they prescribe. Whether this practice be due to a want of thought, or to a too great confidence in human nature, the results are the same, *i. e.*, loss to the practitioner, not only of actual cash, but also of prestige; for it is an undoubted fact that the public really values only those things which are, to a certain extent, enshrouded in mystery. This may appear at first sight a rather sweeping assertion, but a moment's consideration will convince the most sceptical that such is the case. The numerous advertising schemes of the proprietors of the almost countless array of quack nostrums, and the millions of dollars which are yearly spent by them on the newspapers, are a sufficient indication of the willingness of the public to be gulled, and of the innate desire of the majority of mankind to accept as true those things which it cannot understand. Knowing as we do that such is the case, if we desire to retain our hold on the confidence of the public, and render the profession of medicine less

precarious from a pecuniary point of view, we will do well to hesitate in the disastrous course some of us are now pursuing, and, even at the risk of being thought antiquated in our ideas, to go back to the good old custom of writing prescriptions so as to make them unintelligible to the general reader. The necessity for this will be very clearly demonstrated by calling to mind an experience which has been but too often undergone, no doubt, by every practitioner of medicine.

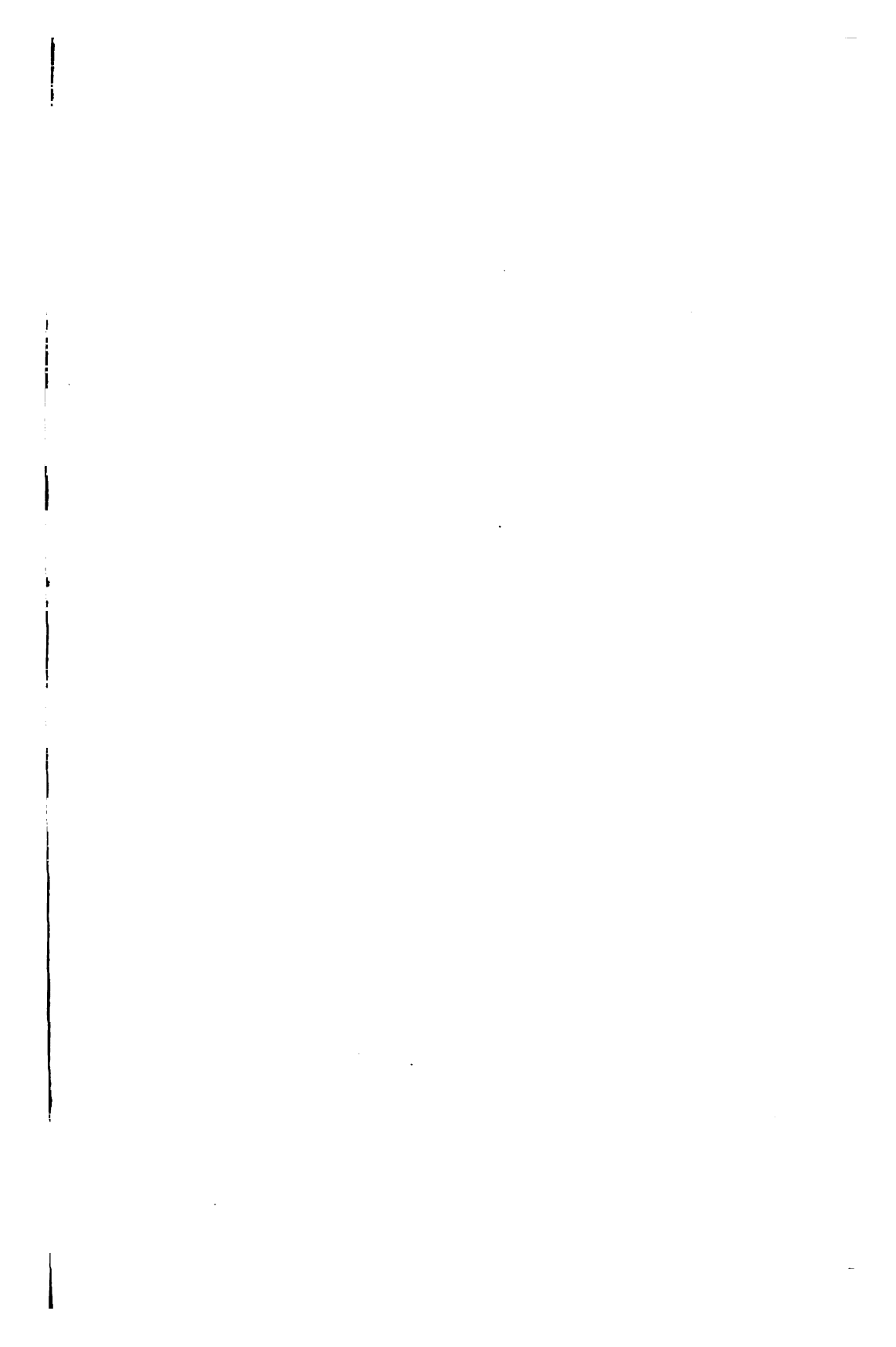
Who among us does not call to mind having prescribed for some patient, whom we will call Mrs. Smith, some one of the many analgesic preparations at present in vogue, telling her at the time that the medicine was so many grains of so and so, or writing the name of the article in plain English on the prescription; perhaps emphasizing the information by directing the druggist to write the name of the preparation on the label, in order to make sure that there should be no mistake.

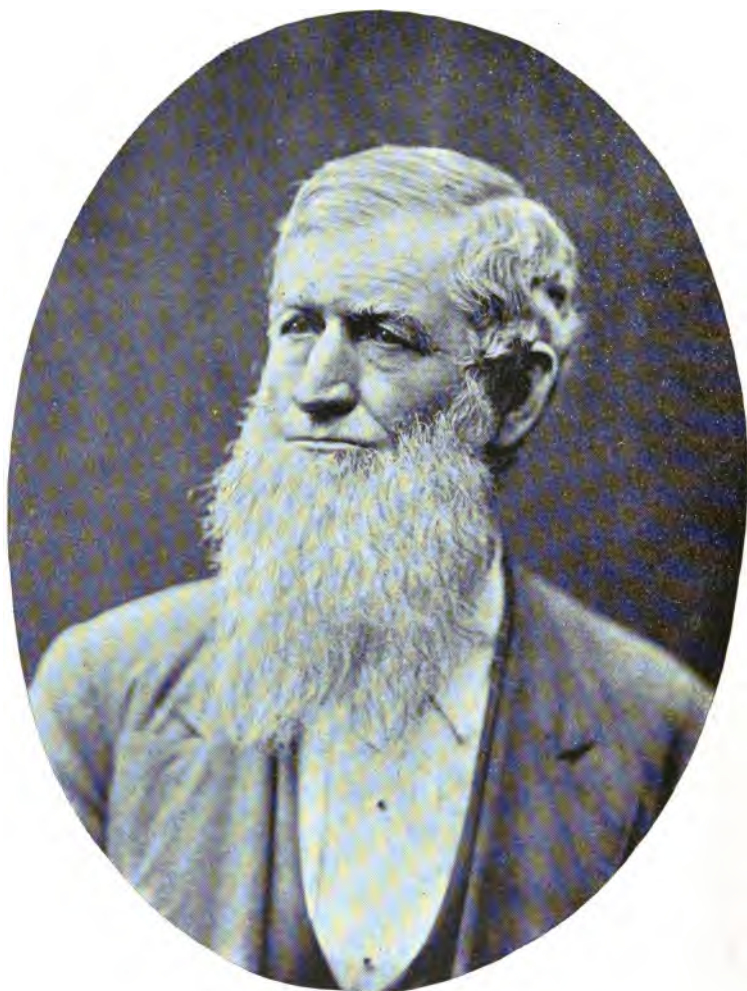
What is the result? Mrs. Smith hastens to inform her friends and acquaintances that Dr. — prescribed for her such and such a preparation, which afforded immediate relief. These friends, who number probably a dozen or more, try the remedy, and finding their indisposition benefitted by it, hasten to communicate the discovery (?) to others.

Some may—but in all probability the majority will not—give any credit to the physician who first prescribed the remedy which has proved a panacea to so many. In any case, the said physician, or one of his confrères, has lost the opportunity of securing a fee. Of course, as we all know, the public is not capable of diagnosing correctly; but this consideration does not in the least deter them from applying any remedy of which they hear to the palliation or cure of any malady with which they may believe themselves to be affected. The risk run in no wise makes them pause to consider the danger, which, even if they were aware of its existence, would weigh but little against the consciousness of “having saved the doctor’s fee.”

Does not such a condition of affairs suggest that it is time to call a halt? Unless something is done to correct the evil, complaints of decrease in medical practice will become more and more numerous, until the faculty finds that its members will be compelled to work for glory, or that the public will only, in extreme cases, request their services.

R. N. G.





DR. JOHN SIDNEY MOORE.

## Editorial Department.

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## The Earlier Editors of the St. Louis Medical and Surgical Journal.

### III.—DR. JOHN SIDNEY MOORE, 1847-1861.

"He wore the marks of many years, well spent,  
Of virtue, truth well tried, and wise experience."

#### BIOGRAPHICAL.

Owing to lapse of time, death of old friends and removal of relatives from the city, we are forced to rely almost entirely upon Scharf's History of St. Louis for the biography of Dr. Moore. According to this authority he was born in Orange County, N. C., in 1807. His earlier education was obtained at the common schools of the vicinity of his birth-place, and in 1823 he was sent to complete the same to Cumberland College, Princeton, Ky. Here he was graduated in 1826. Having determined to adopt the profession of medicine, he attended a course of lectures in the medical department of Miami University, after which he practiced for five years at Mt. Vernon and Carlisle, Ill. During this period he married the daughter of Professor Morrison, of the Faculty of Cumberland College, and feeling the necessity of further medical education he made arrangements to attend Jefferson Medical College, Philadelphia. On his way to

the latter place, while tarrying in Cincinnati, he met Dr. McDowell, who persuaded him to forego the eastern trip and to enter the junior class of the Cincinnati College. He was graduated from this institution in the spring of 1832, and went at once to Pulaski, Tenn., where he practiced his calling successfully until 1840. In September of that year he removed to St. Louis, then putting forth its early promises of becoming the great emporium of the Mississippi Valley. Here he at once fell in with congenial spirits, and we first hear of him as taking part with McDowell, Hall, DeWolff and Prout in the organization of Kemper Medical College, afterward the Missouri Medical, in which he took the chair of Obstetrics and Diseases of Women and Children, and with which, under its various changes of name, he continued to be connected until 1883.

In May, 1845, there was started in this city a journal called the *Missouri Medical and Surgical Journal*, under the editorship of Dr. R. F. Stevens, with the faculty of Kemper College as associates. In the list we find the name of Dr. Moore, but as no file of the journal is extant, or at least obtainable by us, we do not know to what extent the doctor contributed to its pages. This journal was from the outset the organ of the Faculty of Kemper Medical College. Dr. Stevens was soon succeeded by Dr. Barbour, as editor, and in June, 1847, Dr. A. J. Coons was announced as associate editor. In September, 1848, the *Missouri Medical and Surgical Journal* was merged into the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, and the name of Dr. Wm. S. Moore appeared on the title page of our journal for the first time. Although for many years thereafter it remained on the title page, we have been unable to discover any contributions from his pen, although he must have written, and written a great deal. In the earlier numbers of the journal it is an easy matter to pick out the authors of every article, as communications were signed with the initials of the writer; thus L. stood for Linton, McP. for McPheeters, J. B. J. for Johnson, etc. As the journal grew older this custom in a great measure was discontinued, and it became difficult for one not thoroughly familiar with the peculiarities of the various writers to determine the authorship of any given article.

When the journal was reorganized in 1865, Dr. Moore did not again connect himself with it. We find him, however, in 1872,

announced as an associate editor of the *Humboldt Medical Archives*, or as it was then called, the *Medical Archives*. This journal was established in 1867 by the brilliant and learned, but erratic and polemical, Dr. A. Hammer, and Dr. J. C. Whitehill. Hammer dropped out at the end of the first year, and Whitehill ran it alone for a few years, or until the end of 1874, when he left St. Louis. His associate editors during the last two or three years of the *Archives'* existence, besides Dr. Moore, were Drs. E. A. Clark, E. F. Smith, E. H. Gregory, L. Ch. Boisliniere, E. Montgomery, J. S. B. Alleyne and Thos. Kennard, an array of talent that should have made the *Archives* a permanent power in the local world of medicine.

After thirty-six years' service in the faculty of the Missouri Medical, as Dean and Professor of the Theory and Practice of Medicine, Dr. Moore in the fall of 1883 resigned, and shortly afterward on account of failing health moved with his family to Jackson, Miss., where on March 3, 1885, he died, in his seventy-ninth year. In 1884 he occupied the chair of the Principles and Practice of Medicine in the St. Louis College of Physicians and Surgeons, a position which he occupied up to within a short time of his death. He was buried in St. Louis a few days after his demise.

It is stated that Dr. Moore gave the first medical lecture delivered west of the Mississippi River. It was the custom in those days for the professors, in opening the course of instruction, to deliver the first lecture, which was always introductory, in public, and it fell to Dr. Moore, as the youngest member of the faculty of Kemper College, thus to give the first lecture in the course of medical instruction then begun. This was in October, 1840. Dr. Moore was one of the most genial, approachable and kind-hearted men, and his old students, of whom there are a great many practicing in St. Louis and elsewhere, still refer to him affectionately as "Uncle Johnnie." Dr. Moore was an enthusiastic member of the American Medical Association, and was elected first vice-president thereof in 1869. We understand that the immediate members of his family are dead, except one daughter, who is the mother of Dr. W. F. Thornton, now a practicing physician at Shelbyville, Ill.

## DR. W. M. MCPHEETERS.—A CORRECTION.

In the biographical sketch of Dr. McPheeters, which appeared in our February number, an important error in some manner crept in, to-wit: In the statement that, after his return from the south in 1866, Dr. McPheeters resumed his old chair in the faculty of the Medical Department of the St. Louis University. We should have written that he was elected to the chair of *Materia Medica and Therapeutics* in the Missouri Medical College. In connection with Drs. Curtman, Michel, McDowell and Robinson, he assisted in the reorganization of that school, and he still is *emeritus* professor of the branches named in that venerable institution. Our thanks are due to a number of correspondents who pointed out the error.

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Microscopy.

## Taylor's Freezing Attachment to Microscopes.

By THOS. TAYLOR, Microscopist U. S. Dep't Agric.

This device, which I have prepared for use with the microscope, is the result of a long-experienced want of some method of crystallizing the various oils and their acids, so as to obtain microphotographic views of their respective crystalline arrangement, a knowledge of which is important in microscopic investigations relating to adulteration of food, and other oils. Another advantage offered by this invention is, that by this method objects in natural history mounted in varnish or other media may be thrown on a screen and photographed. In the use of sunlight or Drummond light the liquid soon reaches 212° Far., and thus renders a valuable mount useless.

In Fig. 38, A, is the microscope; B, the freezing box made of brass or of German silver and attached to the sub-stage of the microscope by means of two clamps, one on either side of the box; B is a separate view of the apparatus; *a* and *a*, represent tubes, one of which supplies a freezing liquid, the other carries it off. A pail to receive the waste liquid is in readiness, and is connected in the usual way by means of rubber tubing. C, is an opening through the centre of the box to admit of the transmission of rays of light to the object under investigation. The freezing liquid may be used repeatedly or until it ceases to be cold enough for the

purpose. Any of the usual freezing liquids or ammonia gas or ether may be used. The tube which carries off the liquid from the freezing box should terminate in a small orifice to prevent unnecessary waste. The box is provided with an air-escape to facilitate the operation of filling the box with freezing liquid. When this is accomplished plug the opening and secure the box in position. In using ether, remove the plug to allow the ether to escape, or insert a tube to convey it to a separate vessel where it may be condensed.

### Dermatology and Genito-Urinary Diseases.

**The Latent Stage of Leprosy.**—Hallopeau (*Ann. de Derm. et de Syph.*) showed at the French Society of Dermatology a patient who had been fourteen months in Martinique. In 1855 he returned to France, and was never afterwards exposed to the contagion of leprosy. He first showed symptoms of this disease in 1887, thirty-two years after he had left a country in which leprosy prevails.

**Mycosis Fungoides.**—Phillipson (*Annales de Derm. et de Syph.*) who has investigated the histology of mycosis fungoides, has arrived at the conclusion that it takes its origin in the cells of the connective tissue, and is consequently to be considered as belonging to the class of affections known as granulomata; and that even the early eczematous stage of the disease is due to the beginning of the granuloma, the eczematous patch being simply a condition in which the cellular infiltration extends in a very thin layer.

**Epithelioma of the Upper Lip in a Boy.**—Gangolphe (*Lyon Méd.*) reports the following case: A boy, aged 15, came under observation on September 4th, 1891, with an ulcer of the upper lip. There was no sign or history, personal or hereditary, of scrofula or syphilis. The disease had begun eight months before in a tiny ulcer on the middle part of the upper lip, which, according to the patient, had followed a wound inflicted by the claw of a cat. A scab formed, which the patient used to pull off, and the ulcer gradually spread and became deeper. The base was rugged, and blackish in color, the edge raised and extremely

hard. There was no discoverable glandular enlargement. The ulcer was freely excised, and the microscopic examination left no doubt as to the epitheliomatous nature of the lesion. At the date of the report—more than a year after the operation—there was no sign of recurrence.

**Effect of Piper Methysticum on the Skin.**—Lutz (*Monats. f. prakt. Derm.*) describes the effect on the skin of the use of *awa* (piper methysticum) amongst the natives of the Sandwich Islands. By the long use of *awa*, the skin, particularly that of extremities, assumes the appearance of well marked ichthyosis, associated with a certain degree of atrophy, such as is observed in senile skin. There is an absence of inflammatory symptoms. He also remarks on the frequency of bronchial asthma in the inhabitants of the Sandwich Islands, both whites and natives being affected. The affection appears in such a manner as almost to suggest small epidemics. There is presumably some atmospheric cause for them. The symptoms are those of a suffocating capillary bronchitis, with defective expiration, iodide of potassium giving speedy relief.

**General Cystic Elephantiasis in Seven Months' Fœtus.**—Bode (*Centralbl. f. Gynæk.*) recently exhibited this specimen at Dresden. The mother was a 3-para, aged 27, and seven months pregnant. Bode had been called in four weeks before delivery, as the patient had fallen down and hurt herself. He watched the case, and found that the ovum slowly perished after the accident. The presentation was footling. The fœtus was, as usual, very bulky, through universal œdema of the entire body. The face was disfigured and shapeless; the forehead, hands, feet, and digits were very puffy. The soft parts over the occiput formed a large chignon, which contained cystic cavities of different sizes. The mother was very strumous; she did not suffer from albuminuria or œdema. The heart's action was slow, the pulse weak, yet no organic cardiac affections appeared to exist.

**Psorosperms.**—Boeck (*Archiv. fur Derm. und Syph.*) examined the object described as "psorosperm" in a case of Darier's disease, and found that the appearances to which this name had been assigned were in reality large, round, epidermic cells, partly cornified. The cells contained in their protoplasm eleidin granules, and in the midst of the protoplasm there is a

distinct nucleus. Staining reactions showed that there was nothing in these cells allied to the organization of known forms of coccidia.

Krosing has published (*Monats. f. prakt. Derm.*) the results of an examination he has made in a case of Darier's disease of the skin, of which he made an exhaustive histological examination. He also finds that the bodies supposed to be coccidia contain keratohyalin and eleidin substances, which have a connection with the cornification of the epithelial cells, and concludes that the bodies in question are not coccidia, but are epidermic cells in a certain stage of cornification.

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### Excerpts from Russian and Polish Literature.

**Treatment of Asiatic Cholera.**—At a recent meeting of the Towarzystwo Lekarskie Warszawskie (Warsaw Medical Society), Prof. Marcelli Nencki, of St. Petersburg, read an interesting paper (*Gazeta Lekarska*, No. 2, 1893, p. 31), in which he recommends the treatment of Asiatic cholera by the internal use of beta-naphthol-bismuth, and phenol-bismuth. The new compounds, which are prepared by Neider's chemical works at Radebeul, near Dresden, were successfully resorted to by Dr. Shubenko during the last formidable epidemic of cholera in Baku. This practitioner usually administered the bismuth salt from 2 to 3 grammes daily, but Prof. Nencki believes that even lesser doses may prove equally efficacious. At all events, the drugs seem to be harmless even when given in much larger quantities. Thus Dr. Jasinski's experiments on dogs have shown that a two-month administration of phenolate of bismuth in the daily dose of 5 or 6 grammes (to a dog of medium size), does not give rise to any injurious effects whatever. According to Dr. Nencki's hypothesis, the bismuth salts form insoluble compounds with toxalbumoses or ptomaines in the intestinal tract, and *eo ipso* prevent their absorption into the system.

Another useful means is thought to be offered by salol, which in the daily dose of 3 or 4 grammes, gave very good results in the hands of Kahn, of Astrakhan and Volkovitch (*vide infra*). Its beneficial effects, unfortunately, appear to be limited to the first stage of the disease. In the algid stage even much larger doses remain of no avail.

**Salol in Cholera.**—In the *Bolnitchnaia Gazeta Botkina*, November 1 and 2, 1893, p. 8, Dr. M. Volkovitch, of Nijny-Novgorod, related his experience of salol, which he tried in about 200 cases of patients suffering from epidemic diarrhœa. Many of the cases were undoubtedly nothing else than those of incipient Asiatic cholera. In 20 per cent. of the cases diarrhœa was accompanied by vomiting. A majority of the patients applied within three days after the appearance of first symptoms, the daily number of stools varying from three to fifteen. Adult patients were usually given two grammes of salol at the outset, then 1.0 hourly for three hours, and afterwards every four, five or six hours (in short, from 8 to 10 grammes were taken during the first twenty-four hours). Children received 0.1 grammes of the remedy per each year of their age, the dose being repeated every three or four hours. The drug was administered either in powder (which was simply placed on the tongue and swallowed), or with hot tea, in gelatine capsules, or emulsion. As a rule, in twelve hours after the first dose, the patient's stools decreased in frequency and assumed a thicker consistency and a yellow color, while in twenty-four hours they became perfectly normal in all regards. At the same time nausea and vomiting ceased, and in a day or two the patient was enabled to resume his or her usual occupations. As adjuvants, the writer ordered absolute rest, warm compresses to the abdomen, a very hot tea (*a la russe*—i. e., fairly weak infusion), with lemon and suitable diet. The author yet never observed any symptoms of a carbolic poisoning due to the free administration of salicylate of phenol; in fact, the only unpleasant accessory effects of the drug ever seen by him were limited to occasional giddiness and aural noises, which phenomena were probably caused by the absorption of salicylates. [*cft.* Professor M. Nencki's papers in the *Gazeta Lekarska*, No. 36, 1887; and in the *Therapeutische Monatsschrift*, November, 1887. As is known, salol has been introduced, and, we regret to add, patented, by this eminent Polish chemist.—*Reporter.*]

**Carbolic Acid in Anthrax.**—In the *Zemsky Vratch*, Nos. 45 and 46, 1892, p. 698, Dr. Alexei G. Glinsky, of Poltava, records twelve successive cases of malignant pustule treated and cured by carbolic acid. The author practiced the method after the following simple rules: Having made multiple superficial inci-

sions into the slough and its vicinity, he cauterizes the scarified spots with a concentrated alcoholic solution of carbolic acid; then he proceeds to inject a two per cent. aqueous solution of the drug into the diseased area, using from two to four syringefuls (Pravaz) on each occasion, and repeating the procedure twice or thrice daily until the temperature has returned to the standard. In a few days the swelling and fever gradually disappear, the slough separates, etc. Dr. Glinsky adds that out of thirty-five cases of anthrax which had been treated by cauterization alone, as many as nine (25.8 per cent.) ended lethally.

**Bacteriology of Asiatic Cholera.**—At a late meeting of the Kiev Medical Society (*Vratch*, No. 1, 1893, p. 26), Dr. I. G. Savtchenko made a very instructive communication on his bacteriological researches, which prove beyond any doubt that there exists at least six distinct species of cholera *pathogenic* microbes. He has succeeded in isolating the following varieties, his materials being derived from dejecta of live cholera patients and from gastro-intestinal contents taken from cholera bodies immediately after the patient's death:

1st. Koch's typical comma bacillus.

2d. A microbe resembling *Vibrio Metchnikovii*. It thrives both on jelly and potato, the growth being characterized by rapidity. On gelatine the bacilli form granular colonies encircled with a zone of liquefied medium. Intra-peritoneal injections of pure cultures of the microbe in lower animals give rise to hemorrhagic peritonitis, and are followed in three hours by a fall of the bodily temperature down to 33° C., the animal quickly succumbing. The bacilli are met with in cholera patients with ulceration of the large bowel and bloody stools.

3d. Another variety grows in about the same manner as Koch's comma bacillus, but forms thicker and darker colonies than the latter. When inoculated in pigeons the species kills the animals, while Koch's microbe proves to be totally innocuous with regard to the birds. The bacteria grow on potato.

4th. A bacillus forming colonies which resemble a small spiral-like worm.

5th. A bacillus which, morphologically, is identical with the species sub. 2, but proves to be harmless with regard to pigeons, while the latter kills the birds. The microbe grows on potato.

6th. An almost straight rod. Does not grow on potato.

In addition, the author has been able to obtain a peculiar bacillus from swollen mesenteric lymphatic glands (from cholera bodies). The microbes, occurring sometimes in pairs, liquefy gelatine and kill guinea pigs and rabbits.

**Washing Out the Stomach and Bowels in Asiatic Cholera.**—In the *Yujno-Russkaia Meditsinskaia Gazeta*, No. 13, 1892, p. 166, Dr. Iakov F. Shorr, of Kherson, publishes a report on sixty-six cases of Asiatic cholera from his recent practice, of which ten ended lethally. In the beginning of the outbreak of the epidemic the writer tried to treat his patients by calomel, opium, bismuth, salol (*vide supra*), naphthalin, subcutaneous transfusions of saline solutions, etc., but very quickly arrived at the conclusion that all such means were utterly useless, if not still worse. Hence he proceeded to apply a "rational" method which had been successfully practiced by a colleague of his, Dr. M. L. Popper, the gist of the plan consisting in thoroughly washing out the gastro-intestinal tracts infested with cholera microbes and their toxic products. In brief, Dr. Shorr made every patient coming under his observation to at once drink as many as possible tumblerfuls of hot water containing three drops of hydrochloric acid to each tumblerful. As soon as the patient had managed to successively imbibe six or eight tumblerfuls, the author passed to exercise manual pressure on the epigastric region in order to expel the "wash." In about ten minutes after the vomiting had ceased the whole cleansing procedure was repeated. As a rule, sickness after this decreased in frequency, or even disappeared altogether. In some exceptional instances, however, a third washing out was to be performed in three hours or so. Simultaneously the intestines were cleansed by means of enemata, made of from twelve to eighteen tumblerfuls of a hot 2.5 per cent. aqueous solution of tannin, or in the absence of the drug, of the same copious amount of a hot plain water. The injection was usually followed by decrease of diarrhoea, but sometimes a second enema became necessary, being then administered in about two hours after the first. When practicable, the measures were supplemented by a hot general bath; and a successive application of abdominal compress soaked in a hot, strong solution of kitchen salt; and wrapping the whole body with hot sheets and blankets. Internally, the patients were given claret

(boiled with cinnamon and sugar), and lemonade made of hydrochloric acid (ten drops to each tumblerful) and taken a mouthful every ten minutes. In addition, some stimulant remedy (camphor, ether, caffeine with benzoate of sodium), was administered hypodermically. The results obtained from the method proved by far superior to those from any other known to Dr. Shorr.

Berne, Switzerland.

VALERIUS IDELSON.

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## Medical Progress.

### THERAPEUTICS.

**Cerebrine in Nervous Disorders.**—Dr. William A. Hammond reports excellent results from the use of cerebrine in nervous prostration, neurasthenia, hysteria, general paresis, etc. He details the method of preparation (*N. Y. Med. Jour.*) of this extract. He states that five minims of this extract, diluted at the time with a similar quantity of distilled water, constitute a hypodermic dose.

The most notable effects on the human system of a single dose are as follows, though in very strong, robust and large persons a somewhat larger dose is required, never, however, exceeding ten minims:

1. The pulse is increased in the course of from five to ten minutes, or even less in some cases, by about twenty beats in a minute, and is rendered stronger and fuller. At the same time there is a feeling of distension in the head, the face slightly flushed, and occasionally there is a mild, frontal, vertical or occipital headache, or all combined, lasting, however, only a few minutes.

2. A feeling of exhilaration is experienced which endures for several hours. During this period the mind is more than usually active and more capable of effort. This condition is so well marked that if the dose be taken at about bedtime wakefulness is the result.

3. The quantity of urine excreted is increased, when other things are equal, by from eight to twelve ounces in the twenty-four hours.

4. The expulsive force of the bladder and the peristaltic action of the intestines are notably augmented—so much so that in eld-

erly persons in whom the bladder does not readily empty itself, without considerable abdominal effort, this action is no longer required, the bladder discharging itself fully and strongly, and any existing tendency to constipation disappears, and this to such an extent that fluid operations are often produced from the rapid emptying of the small intestines.

5. A decided increase in the muscular strength and endurance is noticed at once. Thus I found in my own case that I could "put up" a dumb-bell weighing forty-five pounds, fifteen times with the right arm and thirteen times with the left arm, while after a single dose of the extract I could lift the weight forty-five times with my right arm and thirty-seven times with my left arm.

6. In some cases in elderly persons an increase in the power of vision is produced, and the presbyopic condition disappears for a time.

7. An increase in the appetite and digestive power. Thus a person suffering from anorexia and nervous dyspepsia is relieved from these symptoms, temporarily at least, after a single dose hypodermically administered.

These effects are generally observed after one hypodermic injection, and they continue for varying periods, some of them continuing for several days. In order that they may be lasting, two doses a day should be given every day or every alternate day as may be necessary, one in the morning and one in the afternoon, and kept up as long as the case under treatment seems to require. The most notable effects are seen in the general lessening of the phenomena accompanying advancing years. When some special disease is under treatment, the indications for a cessation of the injections will be sufficiently evident either by an amelioration or cure or a failure to produce these results.

To the substance obtained in the manner mentioned and held in solution he has given the name of cerebrine as the one, in view of its origin, most appropriate.

**Phenacetine in the Treatment of Pneumonia.**—Practitioners who are the most conservative in their views concerning the medicament to be employed in acute inflammatory fevers, and who especially unite in deprecating the use of heart depressants, show a preference for phenacetine as an antipyretic. At

the meeting of the American Medical Association, in June last, Dr. Bailey said that phenacetine "could be safely used as an antipyretic in pneumonia," and pronounced it to be "as efficient as the external application of cold water, and no more depressing to the heart." In this same discussion, Dr. Beatty said: "Phenacetine is not objectionable as an antipyretic, because it does not affect the heart unfavorably." Dr. Beatty, by the way, believes that, in pneumonia, venesection is never indicated. He says that sedatives are only exceptionally required in pneumonia, and gives the preference to phenacetine when such medication is indicated. He employs the same remedy in the treatment of the pneumonia of the aged, advising its use in moderate doses, when the temperature rises above 102°. As cardiac tonics, he entertains a preference for quinine, strychnine or sparteine, to be administered as needed. Other writers cite the excellent effects of phenacetine in quieting the pain and restlessness of pneumonia, and inducing that condition of gentle diaphoresis which promotes refrigeration, and is thought, by some observers, to hasten resolution. Cases of pneumonia are reported in which, when gastric or rheumatic symptoms were present, the remedy was advantageously united to salophen, the new antirheumatic.

#### **Physiological Action of Chlorhydro-Sulphate of Quinine.**

—Mons. Laborde recently spoke as follows: "The tests I have made upon animals of this new salt of quinine, prepared by Mons. Grimaux, have exactly reproduced the symptomatic picture of the physiological and toxic action of quinine.

Characteristic, bilateral agitation of the head, in the guinea pig; inco-ordination; motor ataxia; analgesia, localized at first at the point of injection and afterwards becoming generalized; then, at a more advanced stage of the toxic influence, exhilaration and quinic stupor, and, if the dose reaches a toxic total, the phenomena and the processes of terminal asphyxia.

The doses, through which these effects were induced, varied in our experiments from ten to twenty centigrammes, given in hypodermic injections to guinea-pigs having an average weight of 400 grammes. Even with doses of from  $2\frac{1}{2}$  to 5 centigrammes, we obtained the characteristic phenomena of agitation, inco-ordination or quinic intoxication.

But the point in which the new salt is especially distinguished

from its simple congeners, notably the sulphate and the hydrochlorate of quinine, lies in the fact of its more rapid absorption, in which its effects are sensibly more prompt. This is probably due, other qualities being equal, to the much easier and greater solubility of the chlorohydro-sulphate of quinine, as compared with that of the single salts of that base.

From this point of view, the chlorohydro-sulphate of quinine must be regarded as a precious medicament for administration in capsules or for hypodermic employment, and it is a product, by the way, whose subcutaneous use gives rise to no appreciable local irritation.

The chlorhydro-sulphate of quinine seems to me to be called to render veritable services to therapeutics.

#### **Iodide of Strontium in Cardiac and other Affections.—**

Drs. Laborde and Malbec state (*Tribune Médicale*) that the clinical application of Iodide of Strontium has been retarded on account of the extreme difficulty which was first experienced in procuring a chemically pure and at the same time a stable salt.

Practical clinical experience with strontium iodide (Paraf-Javal,) has fully confirmed the supposition that the iodide of Strontium would present the same advantage over the potassium salt as its bromide analogue, and a series of observations was undertaken by one of us, on account of the non-poisonous character of the salt as compared with potassium iodide.

Observation 1. A lady, æt. fifty, with chronic endocarditis, and an enfeebled action of the heart, suffered from considerable dyspnoea together with symptoms of angina pectoris. The patient was treated for some time with iodide of potassium which gave considerable relief, but she was unable to continue its use any longer on account of the gastric-irritation to which it gave rise. The standard solution of strontium iodide (thirty grains to the ounce) was therefore substituted, beginning with one tablespoonful, subsequently increased to two tablespoonfuls daily. The change proved eminently satisfactory and within twenty-four hours a marked improvement in the symptoms was observed and the amelioration was maintained by its continued use.

Observation 2. A young professor affected with cardio-pulmonary affection, characterized symptomatically by attacks of depression at times, taking the form of angina pectoris with a state of incomplete syncope. The heart presented signs of chronic en-

docarditis with a predominant determination on the left side of the auriculo-ventricular orifices, which is the seat of an *insufficiency* shown by a rude *souffle* subsisting at the left and at the point of normal *bruit*, as well as by a marked systolic tendency of the radial pulsations.

The patient had been benefited by iodide of potassium, but was unable to continue its use, even in small doses of from fifteen to twenty grains daily, without gastric derangements, which prevented the proper functions of digestion and alimentation. He was very weak, discouraged, and a prey to attacks of præcordial agony. A tablespoonful of the standard solution of iodide of strontium was administered, and increased later to a tablespoonful and a half daily. The effect was most remarkable, and in a few days he was able to resume his occupation, and gradually the functional phenomena to which he was subject disappeared, the nutritive functions improved and a fair condition of health is now established.

The indications for the use of iodide of strontium are of course those of iodide of potassium, in which are included cardiac and cardio-vascular affections due to arterio-sclerosis; lesions of the myocardium and intra-cardiac orifices, asthma, angina pectoris, and in chronic and muscular rheumatism and gout; it is also indicated in the treatment of that large class of skin affections recognized to be amenable to odine, also in inflammation, of a strumous type.

It may be advantageously employed in inflammatory conditions such as pleurisy, peritonitis either simple or tuberculous, pericarditis, certain forms of pneumonia, and in pulmonary emphysema.

This medicament is clearly indicated moreover in the treatment of enlarged glands, such as the amygdalæ, in mammary hypertrophy, and in enlargement of the uterus or prostate.

**Tannin Enemata in Cholera.**—Dubner, of Simbirsk (*Vratch*) treats cholera mainly by Cantani's tannin enemata, repeating the injection four or six times. He begins with a solution at from 38° to 40° C., but as soon as improvement sets in, he reduces the temperature down to 32° or even 28° C., because frequent hot injections are apt to give rise to abdominal pain and general weakness. Hot enemata are also contra-indicated by bloody stools. If restlessness or excitement is present, the author orders a warm bath

with irrigations of the head. He systematically avoids any internal medication (including calomel, which occasionally causes intestinal hæmorrhage and cystitis). Narcotics he thinks worse than useless, since they are apt to inhibit the action of the gastric mucous membrane, and may even induce hiccough. Stimulants (camphor, musk, etc. proved useless in his hands.

#### PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

**Male Hermaphrodite Living as a Wife.**—Kochenburger (*Centralbl. f. Gynæk*), read before the Berlin Obstetrical Society in November, 1892, notes of a "woman," aged 35, who had been married ten years. She was accustomed to regular connection, which gave no particular pain, but was unattended by orgasm on her part. The menses had never been seen. The vagina was a blind canal not quite two inches long, and no other pelvic organ could be detected on exploration. In each labium were two cylindrical bodies, which A. Martin excised as they caused pain. On microscopic examination, the two bodies proved to be testicle and epididymis. Hence the subject was an example of transverse male hermaphroditism.

**Rumination in Neurasthenia.**—To illustrate this condition, Nacke (*Neurol. Centralbl.*) describes his personal history and symptoms. When about 30 years of age he became neurasthenic through excessive mental strain; since then, that is, for about ten years, he has been subject to rumination occurring periodically in close relationship with the degree of his nervousness. Increase of the latter is the most powerful of all conditions that induce or aggravate the merycismus. Eating quickly, or less sparingly than usual, always gives rise to the condition. As a rule, a quarter or half an hour lapses before regurgitation begins, and it then recurs until the food is finely divided. No change in the flavor of the regurgitated food takes place, consequently Nacke excludes hyperacidity or other abnormal chemical state. He suggests that paresis of the cardia with morbid irritability of other parts of the stomach, due to neurasthenia, may be causative factors in his case.

**Actinomycosis.**—Poncet (*Sem. Méd.*) reports a case in which the primary affection was followed by secondary pulmonary generalization. The patient was attacked, eight days after extrac-

tion of a carious tooth by inflammatory swelling of the submaxillary gland, which gradually spread to the corresponding cheek and parotid region. A number of abscesses formed, followed soon by fistulæ. A month later a further sudden extension occurred, and the swelling rapidly involved the entire temporal region, with formation of a fresh fistula. After the lapse of another month pulmonary symptoms appeared; there was cough and expectoration, with emaciation and rapid loss of strength. On pressure over the fistulous tracts, a sanguineo-purulent discharge escaped, containing small yellowish granules, which exhibited under the microscope the rosettes of club-shaped bodies characteristic of actinomycosis. Similar structures were observed in the sputa, but no bacilli, though the signs on auscultation much resembled those of a pulmonary tuberculosis. The extent of disease of the jaws and scalp, together with the lung complication, seemed to contraindicate surgical interference, and palliative measures only were adopted. Thomassen, and more recently Nocard, have treated actinomycosis in oxen with success by iodide of potassium, and it has lately been employed by Van Iterson in the case of two patients, apparently with equally good results.

#### DISEASES OF WOMEN AND CHILDREN.

**Suckling and Quinine.**—Oui (*Arch. de Tocologie et de Gynéc.*) finds that when the mother or nurse takes quinine it has no ill effect on the child. The drug is certainly excreted with the milk, but in very small quantities. The quininized milk has absolutely no influence on the child. After a series of careful weighing and measurement, it was found that the average was the same in children suckled for a given time by nurses who had taken quinine as in children whose nurses had not taken that drug. Hence a nurse or mother may safely take quinine. Burdel's theory that quinine is noxious to the child is incorrect, and the precautions which he recommends are therefore unnecessary.

**The Cervix and the Lower Uterine Segment in Pregnancy.**—De Seigneux (*Archiv f. Gynæk.*) claims to be able to distinguish a demarcation between the cervix and the lower uterine segment, as others have done. In the segment the muscular tissue is arranged in well marked lamellæ; in the cervix it is only laminated towards the periphery. Thus the level of the internal os can be distinguished in the puerperal uterus and in other conditions where the characteristic epithelium has been

destroyed or torn off. De Seigneux selected three specimens for his researches: (1) a uterus from a woman who died of hyperemesis gravidarum at the fifth month; (2) a parturient uterus from a patient who died of diphtheria and erysipelas during the dilatation period; and (3) a uterus from a patient who died eighteen hours after delivery from eclampsia. In (1) the lower uterine segment was undeveloped posteriorly, and showed little sign of the hypertrophy of pregnancy in front; the persistence of the cervical canal during pregnancy was distinct. In (2) and (3) no demarcation between the body of the uterus and the lower segment existed, but the segment gradually became thinner towards the cervix. No special "ring" could be found in either case. In all three the distinction between the cervix and the lower uterine segment was clear, and the segment was evidently a part of the uterus.

**Sudden Death in Childbed.**—Tarnier (*Journ. des Sages-Femmes*) describes a case in which all went well after labor till the patient stepped out of bed, saying "To-morrow I shall leave the hospital." She at once felt faint, and died in two hours. A necropsy was made. Coagula, formed by normal thrombosis, were detected in the uterine sinuses. There was also embolism of the pulmonary artery, no doubt caused by the detachment of a clot in the uterus. Sudden death was first discussed scientifically by Lancisi and the obstetrician Dionis, about 1710. Charcot in 1858 wrote a memoir on sudden death in childbed. Simpson was the first to show that endocarditis develops in some cases during the puerperium. In one case the intrapericardial part of the aorta ruptured. In Depaul's case a cyst in the interauricular septum gave way. Thrombosis or embolism is the most frequent cause of sudden death after labor. Phelebitis of the large veins of the leg is an obvious source of danger. Pulmonary apoplexy has been seen, but is less frequent. Armaingaud recently published two cases of angina pectoris in childbed; one died, the other was saved, he thought, by wet cupping; when he first saw her the arms were œdematous. Sudden death is relatively much more frequent in the puerperium than in any other condition, and embolism is the commonest cause, especially after flooding, for the fibrin increases in proportion towards the end of the pregnancy, so that an anæmic woman in childbed is very liable to the development of clots, especially as the circulation is enfeebled.

## SURGERY.

**Laryngectomy.**—Solis Cohen (*N. Y. Med. Jour.*) has recorded two cases of laryngectomy. In one, a man aged 35, a growth which turned out to be an adenoma-carcinoma, appeared at the site from which a papilloma had been removed ten years earlier. Three operations were performed at short intervals—tracheotomy with excision of the growth, endolaryngeal removal of parts of the growth which had recurred, and splitting of the larynx with removal of the diseased structures thus rendered visible. Recurrence occurred after each operation, and finally complete laryngectomy was performed. The patient made a good recovery, and was free from recurrence five months after the operation. In the other case, a man, aged 54, the growth was an adeno-carcinoma springing from the under side of the ventricular band, and limited to the left side. Unilateral laryngectomy preceded by tracheotomy was performed, and the patient did well for twenty-four hours, but then presented signs of septic pneumonia, and died forty-eight hours after the operation.

**A New Method of Gastroenterostomy.**—Postnikow, of Moscow, (*Centralbl. fuer Chir.*) describes a method of performing gastroenterostomy in which the establishing of a free communication between the stomach and duodenum is postponed until the third or fourth day after the date of operation. The following are the stages of this method, which has been tried with complete success on seventeen animals: 1, incision of the abdominal wall; 2, attachment of the selected loop of small intestine to the anterior wall of the stomach by sutures passed beneath the serous coats; 3, excision of a small oval piece from the wall of the stomach as far as the muscular layer, and of a similar piece of the same depth from the wall of the small intestine; 4, union by means of sutures of the posterior edges of the raw surfaces thus established on the stomach and the loop of small intestine; 5, constriction by the silk thread of the portions of mucous membrane protruded at the wounded surfaces of the stomach and small intestine after removal of the serous coat; 6, union by sutures of the anterior edges of the opposed raw surfaces; 7, application of a second row of sutures passed beneath the serous coats; 8, closure of the external wound. In this operation the mucous membrane of the stomach and small intestine is not in-

cised, but is closely constricted by two ligatures which, by causing gangrene of the protruded portions of these coats, and consequent separation, establish a free communication between the adherent parts of the gastro-intestinal tract, Postnikow states that by this method the escape of faecal matter into the peritoneal cavity is prevented, the duration of the operation is shortened, and the necessity for washing out the stomach avoided.

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### Book Reviews.

**The Hygiene of the Sick-Room.** By WILLIAM BUCKINGHAM CANFIELD, A. M., M. D. 12mo. pp. 247. [Philadelphia: P. Blakiston, Son & Co. 1892.

This little book, designed as a work for nurses and containing the substance of a course of lectures delivered before the University of Maryland Training School, presents a brief consideration of asepsis, antiseptis, disinfection, bacteriology, immunity, heating and ventilation, and kindred subjects. While it is primarily intended for nurses and intelligent women whose family or public duties may render necessary the acquisition of knowledge on these subjects, the care with which it is written, the careful study of the literature which it shows, the clearness of its statements, and its thorough presentation of the actual state of the subject at the time of its publication, leads the reviewer to believe that it will find a wider field of usefulness. While it is not too technical, it in no way sacrifices scientific accuracy that it may be a book for popular reading. The very practical instruction, if it could be carried out intelligently, would very largely limit the range of diseases and conditions associated with bacteria, but it would as well increase human comfort in the shortening of the duration and the ameliorating the disease itself. We most heartily commend this book, for it has a mission which it will amply fulfill.

R. W. WILCOX.

**Syphilis of the Nervous System.**—Being a Revised Reprint of the Lettsomian Lectures for 1890, delivered before the Medical Society of London. By W. R. GOWERS, M. D., F. R. C. P., F. R. S. 12mo. pp. 131. [Philadelphia: P. Blakiston, Son & Co. 1892. Price, \$1.00.

These lectures were first printed in separate form in 1889, and at the time of their appearance in the British journals we felt much interest in them, not only on account of the pleasure experienced in reading them, but because of their value. There are but three lectures, yet they are replete with valuable infor-

mation, and, in our opinion, superior to those delivered by Dr. Broadbent on the same subject. We do not intend analyzing the lectures of Dr. Gowers, but merely desire to call attention to the fact that from his own observations, and after a careful analysis of the reports of others, his conclusion is that about seventy per cent. of the cases of *tabes dorsalis* which are seen are of luetic origin, a conclusion upheld long ago by the French school of syphilographers.

We would recommend all those interested in either syphilis or diseases of the nervous system to obtain a copy of this little book. No syphilographer or neurologist can afford to be without it. The publishers are certainly deserving of thanks at the hands of the profession for having placed these excellent lectures in book form, and this edition should certainly be rapidly exhausted.

O.D.

**A Manual of Clinical Ophthalmology.** By HOWARD F. HASKELL, M. D., and JAMES H. BELL, M. D. 12mo. pp. 231. With 120 Illustrations. [Philadelphia: P. Blakiston, Son & Co. 1892. Price, \$1.75.

An examination of this manual has highly pleased us on account of its thoroughness as well as the painstaking efforts of the authors to make the subject matter clear. The general anatomical and physiological conditions are certainly worthy of a more systematic treatise, the illustrations being especially good and of immense advantage to the reader. So far as diseases of the eye are concerned, only those of more common occurrence are considered, but they are well handled, and if diligently studied will form a useful repertory of practical knowledge to the physician, and enable him to know when not to undertake the management of cases whose care is beyond his skill and accomplishments.

The fundus of a normal eye is accurately portrayed in a chromo-lithographic frontispiece, and our only regret is that the scope of the book would not permit of the insertion of several others depicting conditions which should be familiar to the practicing physician, such as albuminuric retinitis, etc. The book on the whole is a most excellent one.

**Text-Book of Ophthalmology.** By Dr. ERNEST FUCHS. Authorized Translation from the Second Enlarged and Improved German Edition. By A. DUANE, M. D. 8vo. pp. 788. With Numerous Illustrations. [New York: D. Appleton & Company. 1892.

The author of this work is the well-known professor of ophthalmology in the University of Vienna, and we could expect nothing but a good book from him. It is a pleasure to those who are unable to read such a work in the original to be present-

ed with a translation, which is not only a true reproduction of the author's work, but which has received his personal sanction as well, and is, as in the present case, enriched by the additions which appear in the German edition, which appears synchronously with the translation. It is as if we received the original last edition, and has that aroma of novelty which is always a recommendation for a translation, and frees it of a certain air of imagined antiquity which it would otherwise possess.

Like all works written by our German confrères, the one under consideration is especially rich in its pathological portion. We find the various diseased conditions of the eye exhaustively considered so far as the structural changes are concerned, and the clearness of description and fidelity of illustration are certainly unsurpassed. Details are given with a clearness that is admirable. So far as the symptoms presented in various morbid conditions are concerned, we also find that much pains has been taken and that the clinical pictures are drawn with a master's hand. Etiological considerations also come in for a large share of attention. Where doubt exists a fair, but brief, discussion is presented, wherein the author presents his reasons for the adoption of a particular view. If weakness there be, it is entirely in the line of therapeutic measures. In this respect we find an incompleteness which, in some instances, is almost inexcusable.

The translator has done his work well, and has given us a well-turned interpretation of the author in a style which is forcible and not involved in any respect. He has made some additions; but, to our way of viewing the matter, he has failed to make some additions which would have added completeness to the work. For instance, in the treatment of trachoma, the author omits two methods which are certainly practiced with an astonishing degree of success, and which are lauded by the oculists of this country. We have the French method of brushing the lids and applying a solution of bichloride of mercury. Again, there is the American procedure in which the roller forceps are used. Both of these are reported as giving rapid and permanent results, yet no mention whatever is made of them in the work before us. Instead, the use of jequirity is mentioned as the best method so far proposed.

It may interest our readers to know that Dr. Fuchs is of the opinion that granular lids are due to a gonorrhœal origin, an opinion which is daily gaining ground with ophthalmologists. The degree of severity of the disease is said to be dependent upon the virulence of the infecting material or the amount of attenuation it has undergone before coming in contact with the conjunctiva.

Despite its minor faults, the work under consideration contains so many good qualities of higher merit that it is well deserving of pronounced success. Its good points are so many and so

marked that they serve to accentuate any minor deficiency which may exist, and thereby render it more glaring. We are sure that no one who possesses himself of this text-book will ever have occasion to regret the outlay.

**A Treatise on Nervous and Mental Diseases.** For Students and Practitioners of Medicine. By LANDON CARTER GRAY, M. D. 8vo. pp. 687. With One Hundred and Sixty-Eight Illustrations. [Philadelphia: Lea Brothers & Co. 1893.]

We can say without hesitation that this is the best work on nervous and mental diseases for students and practitioners which it has been our good fortune to examine. Whilst comprehensive in every respect, it is neither obscure nor redundant. Dealing with an unusually difficult subject, the author has wisely refrained from creating a specialty within a specialty. In his treatment he adopts the somatic view, and wisely leaves the more complicated psychical theorizations incident to mental diseases for specialists, thus avoiding the introduction of much matter which would not be anything but confusing to the reader who is not an expert. The thoroughness of treatment at the hands of the author may be surmised when we mention the fact that he speaks of Raynaud's disease, acromegaly, myxoedema, etc. We are surprised to see that he has not taken up Addison's disease, for there is very little to doubt that it is due to changes occurring in the sympathetic ganglia of the pelvis or abdomen, the supra-renal capsules being merely modified forms of these ganglia.

However, we cannot complain of this omission in view of the thoroughness which characterizes the work throughout. Anatomy occupies nearly one hundred pages, and it is of a most thorough character.

The same may be said of the chapter on electricity, the two forming the first part of the treatise before us; a by no means unimportant one as preparatory to a clearer understanding of the chapters which follow.

In dealing with the various nervous and mental diseases, accuracy of description is very closely followed, as well as minute directions respecting the methods whereby a differential diagnosis may be established. All those aids which it is possible to bring to bear upon these points are introduced, and as a result we are presented with a large number of well-executed photo-engravings, which are original, and representative of typical cases of the diseases under consideration. The illustrations in the chapters on anatomy and electricity are also numerous, and for the most part original, thus making it refreshing for the reader to see something new, and no longer have the more or less imperfect wood-cuts confront him which have been doing duty for the last twenty-five years.

We note that each chapter terminates with a well-selected bibliography, an aid to the interested student which cannot fail being of the greatest value. Those who are desirous of reading elaborations on certain topics are thus enabled to easily find a method which is time-saving as well as valuable. This is merely supplementary to another feature of great value—the recital of the medico-legal conditions which appertain to the different types of nervous and mental disease, embracing as this does the various phases of malingering and simulation.

Hypnotism is merely touched upon, and it can readily be seen that it is distasteful to the author. He considers its therapeutic value as small, although from a medico-legal point of view he regards it as a matter of some import. He is opposed to public exhibitions, and very justly too, in our opinion. We also desire to commend his deprecating even private exhibitions except by those who are competent.

Want of space will not permit us to review the work before us as we would wish to, but we desire to allude to the view, and a correct one, we think, that home treatment of the insane should be better understood and carried out as of the highest value in the proper care of those unfortunates who are so frequently thrust into asylums, where they undergo the reverse of improvement.

The book is gotten up in unexceptionable style, and the publishers are to be congratulated upon having issued such a valuable and useful work from the pen of a neurologist of the highest reputation both at home and abroad.

#### **A Handbook of Pathological Anatomy and Histology.**

With an Introductory Section on Post-Mortem Examinations and the Method of Preserving and Examining Diseased Tissue. By FRANCIS DELAFIELD, M.D., LL.D., and T. MITCHELL PRUDEN, M.D. 8vo. pp. 715. Fourth Edition. Illustrated by three hundred Wood Engravings; printed in black and colors. [New York: William Wood & Company. 1893.]

The best recommendation we can adduce for this work is the fact that the present is the fourth edition which has been issued. It is certainly evidence of its worth, and the present will, without doubt, be exhausted in a much shorter time than any one of those previously issued. We are led to this conclusion by the fact that the volume before us is, practically, a new one, it having been re-cast and re-written, with a liberal addition of quite a number of figures and microphotographs. We do not know which to admire the more, the clear, terse text or the elaborate and exact drawings, all of which are original.

The introductory part is by no means the least important, as it deals with the proper method of making post-mortem examinations so as to make them available, not only for the purely medical determination of pathological conditions, but for medico-legal

purposes as well. Following this we are given detailed methods regarding the proper methods of preparing the different tissues for microscopical examination. The various methods of hardening are dwelt upon at considerable length, considering the general brief outlines which are presented. Section cutting, staining, mounting and technique of preparing microscopic specimens in general are given a lucid presentation. Bacteriology is by no means overlooked and receives full consideration at the hands of the authors.

After all these general methods have been disposed of, special pathology and histology are considered, and it is here, more particularly, that the conscientious work of the authors becomes more distinctly set forth. Whilst the discussions are not exhaustive they are not obscure, and throughout may be seen the painstaking efforts which have been taken to make the subject clear. A large portion of space is devoted to that ever-shifting, ever-important, and as yet not clearly understood subject—tumors. The structural characteristics are set forth plainly enough and, in addition, the various etiological questions connected with them are set forth, as well as other points in connection with tumors, which are of the highest interest to the student, of the processes which are involved in the various forms that occur. Other pathological conditions are considered at more or less length, according to their importance, as far as frequency of occurrence is concerned.

The value of the work is much enhanced by the numerous illustrations which are appended, all of which have been drawn by the authors, with the exception of the microphotographs taken of their preparations. They are all well made and very clearly printed, and do not partake of the schematic form, which was so much in vogue in former years. This alone is a great help to the beginner, as well as more satisfactory to those having experience in the use of the microscope. In many instances the pictures are in black and colors, thus bringing out certain details prominently, in those very tints which are imparted to them by the staining process. A single glance at any one of them will readily demonstrate the superiority of this method of graphic representation, and fully compensates for the very slight advance in price, which it necessitates on the part of the publishers.

To students this work will prove not only an excellent manual, but a safe guide in later years. To teachers it will be a boon in the way of lightening their labors, and will make their efforts more highly appreciated, by investing the subject with more interest. For, strange as it may appear, histology and pathology are regarded as dry studies, when, in reality, they are the most fascinating in all the wide domain of medicine and surgery.

The publishers have gotten out the work in handsome shape, and in a serviceable form as well. In addition to this, the mate-

rial used—paper, binding, etc.—is of the best, and is uniform in quality with the other high class works published by Messrs. William Wood & Co.

**A Treatise on Diseases of the Rectum, Anus and Sigmoid Flexure.** By JOSEPH M. MATHEWS, M. D. 8vo. pp. 537. With six Chromo-Lithographs and Numerous Illustrations. [New York: D. Appleton & Company. 1892.

An experience of fifteen years as a specialist should certainly qualify an intelligent physician for the task of placing upon permanent record his experiences and views on those particular diseases which have for so long engaged his attention. Not only this, but his views should have become matured to that degree as to inspire confidence and respect, as well as lead to a certain amount of originality. These are the very conditions which confront us in this the first work of any consequence, on diseases of the rectum, which has appeared in this country. Dr. Mathews is broad in his views, and he has very properly included the sigmoid flexure, for it certainly is, to a large degree, part and parcel of the rectum, being connected with it intimately, not only from an anatomical point of view, but in a pathological as well as a symptomatological manner. This is an innovation which is not only a good one, but which, in our judgment, will be followed by other writers on the same subject.

The hysterical or nervous rectum receives quite a share of attention as a distinct condition which we do not find mentioned in other authors. In the book before us a good argument is presented to justify the propriety of its being considered a distinct morbid entity, and to an impartial critic the plea which is advanced is both strong and convincing. The fistulotome is an instrument devised by Dr. Mathews for the treatment of fistula *en un temps*. Whilst not applicable to all cases, it is one whose range of usefulness is sufficiently large to entitle it to a position in the surgeon's armamentarium. It will prove a boon to many patients in lessening the time of operation and consequent pain, and will prove of real service to many timid operators who lose much valuable time, and the good opinion of their patients, by the use of non-surgical measures which are insufficient.

We are much pleased to note the earnestness with which the author denounces the itinerant "pile doctors," and the peremptory manner in which he lays bare the fraud which so many practice in regard to rectal "pockets" and "papillæ." It is time that physicians should take up the matter in hand and let the public know that the only advantage that can accrue from opening up the one or nipping off the other consists in the transference of the money from the pocket of the dupe to that of the charlatan. So far as hemorrhoids are concerned, the methods which are given are both simple and effective. They are based upon the

most approved surgical principles and cannot fail of being successful if properly applied.

Cancer of the rectum is treated by means of proctotomy, if it be situated low down. If it be situated high up, the author resorts to Kraske's method. He expresses himself as preferring this method to Alexander's operation, although he does not deny that the latter has given good results in the hands of its author. Neither, however, is to be performed in those cases in which the sigmoid flexure is involved. In this condition he is not very definite in his recommendations, offering nothing superior to Bull's method of extirpation, which he does not look upon kindly. So far as stricture of the rectum is concerned, he states that one-half the cases coming under his observation have been syphilitic in origin, an estimate which is possibly a trifle higher than Kelsey's. However, syphilitic stricture of the rectum is sufficiently frequent to readily account for the author's experience in that condition, so far as the proportion he establishes is concerned.

We are very much pleased with the work as a whole, and expect to see a second edition appear before a long time has passed.

**Human Embryology.** By CHARLES SEDGWICK MINOT. 8vo. pp. 815. Four Hundred and Sixty-three Illustrations. [New York: William Wood and Company, 1892. Price, \$8.00.]

This grand volume is without doubt the largest, the most comprehensive and complete treatise on embryology in the English language, written by a master hand, guided by a master mind. We have taken much pleasure in reading the contributions of Minot to embryology during past years, and, in many instances, we have had the pleasure of confirming his findings. Although aware of the fact that the author contemplated writing a treatise on the subject, we must confess our surprise at seeing the monumental work before us as the result of ten years' preparation. It is indubitable evidence of never-ceasing and patient toil and research, and should certainly be heartily supported by every one who has had any pretensions whatever of being at all interested in anatomical or medical science. We are certain that no biologist will permit this opportunity of obtaining such a treatise escape him. The serious student will also avail himself of the opportunity which has so generously been afforded by the publishers of possessing a work which marks an era in biological progress.

The work is divided into an introduction and five parts, the illustrations being profuse and so clear that they can be readily understood, not being confused sketches, as is so often the case in smaller works on the subject. The introduction deals with the development of the uterus and foetal membranes, being the only authoritative summary heretofore published of the structure, and of both the physiological and pseudopathological changes which take place in these organs. Part I. is devoted to the genital

products, and constitutes a very comprehensive as well as interesting discussion of the subject. In Part II. the germ layers are traced throughout their development, changes, modifications, etc. Part III. deals with the embryo proper, and is probably one of the most fascinating portions of the massive work before us. The foetal appendages receive full consideration. Part IV. and Part V. terminate this portion of the treatise by a full consideration of the foetus.

A most valuable chapter is that devoted to the brain. Recent embryological investigations have effected a marked revolution in the conceptions of the nervous system formerly held, and which were inadequate and incompetent to account for a large number of conditions which were observed. With the clear exposé given by Minot, it is different—the anatomy of the human brain is not only rendered possible, but comparatively freed of difficulties, and made sufficiently clear to be understood.

The author has very wisely chosen not to espouse the cause of any one school of embryology to the exclusion of the other. He believes that the phylogenetic and the anatomical are both justified, and, in consequence, he has paid due attention to each one. A point to which we desire to draw especial attention is the fact that no bias is exhibited in the discussion of any subject. He has been very careful to present observed facts as such, no matter what their theoretical bearings may be. This presentation in such a manner is of the highest value to the investigator, and is probably owing to the fact that Prof. Minot is an original investigator of more than ordinary capabilities, as is well attested in the work before us by the numerous records of his discoveries which may be found. Clearness is an essential feature throughout; and we find that a successful attempt has been made to divest the subject of its supposed mysteriousness; so successfully has this been done that the physician is readily enabled to trace out the practical applications of embryology to his daily work in medicine and surgery.

Of the distinguished author of the work before us, it is necessary for us to say only, that he is the Professor of Histology and Embryology in Harvard University Medical School. His lifelong studies and his intimate knowledge of the literature of his subject, and familiarity with languages in which it originally appeared, have peculiarly fitted him for the difficult and laborious task now so successfully accomplished.

Before closing this short notice, we desire to call attention to the large number of well executed and delicate engravings which occur, and nearly all of which are original, depicting some of the specimens in Minot's large and valuable collection. The bibliography which is given is large and comprehensive, and arranged upon a very simple system. The index is unusually full, embracing some twenty pages.

We cannot but express our admiration for the liberality and enterprise displayed by the publishers in issuing this work. They certainly deserve the gratitude of the English reading profession for the manner in which they have placed this colossal work before the medical profession and scientists. The volume is handsomely bound, printed upon an extra quality of paper. The type is clear, sharp and sufficiently large to be easily read. The illustrations are also particularly well printed, being, as they are, for the most part, of the most delicate character. As an evidence of the appreciation felt for the publishers, an adequate return should be made by large purchases. The price is astonishingly low, when we take into consideration the fact of what an enormous outlay must have been necessary for the production of such a handsome volume, and it is further evidence of the real interest taken by Messrs. William Wood & Co. in the encouragement of American medical science and progress.

**A Manual of Bacteriology.** By GEORGE M. STERNBERG, M.D., Deputy Surgeon-General United States Army. 8vo. pp. 886. Illustrated by Heliotype and Chromolithographic Plates and Two Hundred and Sixty-eight Engravings. [New York: William Wood & Company. 1892.

The author has modestly called this work a manual, whereas, to our mind, it is a treatise of a rather complete character, and one which a practical bacteriologist could profitably place in his laboratory for reference. The enormous progress made in this branch of biology can hardly be appreciated, unless it be by consulting the historical sketch which forms the introductory chapter of the work before us. The mass of literature which had already been published, at the time of the completion of Sternberg's Manual, comprised 2,582 titles, which he appends in his bibliography, and which only embraced the more important papers which he consulted in the preparation of his work.

Dr. Sternberg has not only confirmed the work of others, whenever possible, but he has done a great deal as an original investigator, and has added quite a number of bacteria to the catalogue, which is quite formidable, although the majority of the organisms are rather saprophytic in character or serve useful purposes without particularly entailing any direful consequences. The number considered in the volume before us constitute 489 different species.

So far as the general scope of this manual is concerned, it is comprehensive and thorough. It is such as would enable any one of ordinary care and intelligence to repeat the various processes and manipulations, and successfully carry on bacteriological investigations. Part First deals with the classification, morphology and technique of staining and cultivating, in the various media, as well as the methods of making experiments on animals,

and of photographing bacteria. All these processes are explained very thoroughly; a large number of illustrations being introduced to elucidate the text. The photo-micrographs which are given, are well made and sharp, defining very clearly the morphological characteristics of the cultivations, and of the various bacteria which are represented.

Among the most interesting of the chapters are those devoted to susceptibility and immunity. We are here presented with a very thorough consideration of the theory of Metchnikoff, as well as with the results of that interesting process known as phagocytosis. The methods to be pursued to obtain a distinct conception of this are clearly set forth, and the chromo-lithographic plates are great aids to the student and investigator.

What the author is pleased to denominate the diagnostic portion of his manual, is that which constitutes the bulk of the work. In this the various bacteria are taken up individually, and all their characteristics are dwelt upon at greater or less length, in accordance with their importance and the amount of definite information which we possess in regard to them. Illustrations are introduced in generous quantity, and in most instances the bacteria appear in those colors which they acquire in the staining process. The microphotographs are reproduced as heliotypes, and they are veritable masterpieces of the photographer's art, as applied to the reproduction of the pictures revealed by the microscope.

Naturally, the pathogenetic bacteria occupy a large share of attention, the spirillum of cholera, the bacillus of tuberculosis, that of anthrax, the various pyogenic organisms, and others of a similar nature being considered at quite some length, and most deservedly so. The work is a most complete, thorough and reliable résumé of the subject of which it treats, and our advice to all who desire to keep abreast of the times, in matters medical, is to obtain it and study it. It will open a vast field replete with information and full of interest, as well as of those things which are of the highest value to the progressive physician and surgeon.

The mechanical work of the volume is in the highest style of the printer's and binder's art. The covers are bevelled, the binding elegant, the paper excellent, and the type large, clear, and the presswork unexceptionable.

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**Death of Prof. Hardy.**—We regret to announce the death of Dr. Alfred Hardy, the eminent dermatologist and Professor of Clinical Medicine in the Paris Medical Faculty. Professor Hardy was born in 1811, and was elected a member of the Académie de Médecine in 1867. He was the author of several important works, and in September last took an active part in the Congress of Dermatology at Vienna.

## Literary Notes.

**Books Received.**—The following books have been received and will be reviewed in due course of time:

A Handbook of Insanity for Practitioners and Students, by Dr. Theodore Kirchhoff. 8vo., pp. 362. Illustrated with eleven plates. [New York: William Wood & Co., 1893. Price, parchment muslin, \$2.75; flexible leather, \$3.50.

Mineral Springs and Health Resorts of California, with a complete Chemical Analysis of every Important Mineral Water in the World, by Winslow Anderson, M. D., M. R. C. P. Lond., M. R. C. S. Eng., etc. 8vo., pp. 384. Illustrated. [San Francisco: The Bancroft Co., 1892. Price, \$1.50.

A Practical Guide for Beginners to the Dissection of the Human Body, by Irving S. Haynes, Ph. B., M. D. Oblong. 12mo. pp. 250. [New York: E. B. Treat, 1893. Price, \$1.00.

Hand-book of Massage, by Emil Keen, M. D., Ph. D. Authorized Translation from the Swedish, by Edward Mussey Hartwell, M. D., Ph. D. 8vo., pp. 316. [Philadelphia: P. Blakiston, Son & Co., 1892. Price, \$2.75.

Lectures on Mental Diseases, designed especially for Medical Students and General Practitioners, by Henry Putnam Stearns, A. M., M. D. Small 8vo., pp. 636. [Philadelphia: P. Blakiston, Son & Co., 1893. Price, \$3.00.

A Hand-book of the Diseases of the Eye and their Treatment, by Henry R. Swanzy, A. M., M. D., F. R. C. S. I. Small 8vo., pp. 518. Fourth Edition, with Illustrations. [Philadelphia: P. Blakiston, Son & Co., 1892. Price, \$3.00.

Disease in Children. A Manual for Students and Practitioners, by James Carmichael, M. D., F. R. C. P. Ed. Small 8vo., pp. 591. Illustrated with thirty-one Charts (Appleton Students' Manuals). [New York: D. Appleton's & Co., 1892. St. Louis: J. L. Boland Book & Stationery Co. Price, \$3.00.

A System of Genito-Urinary Diseases, Syphilology and Dermatology, by various authors. Edited by Prince A. Morrow, A. M., M. D. In three volumes. Vol. I, Genito-Urinary Diseases. 8vo., pp. 1074, with Illustrations. [New York: D. Appleton & Co., 1893. Price: cloth, \$6.50; sheep, \$7.50.

**Physiology** is one of the most important studies for the medical student as well as the practitioner of medicine. A thorough knowledge of its essential principles is as necessary to successful practice as of pathology. Dr. Frederick A. Manning has succeeded in compressing the salient points of physiology in a little

work of 213 pages, which forms one of the Students' Quiz Series, issued by Lea Brothers & Co., of Philadelphia. The arrangement has been patterned after Kirke's hand-book, and doubtful questions are referred to Foster's text-book. The book before us is an excellent condensation, and will, no doubt, meet with the success it so eminently deserves.

**Medical Practitioners' Library.**—Messrs. William Wood & Co. take pleasure in announcing that they propose to publish from time to time volumes of special interest to practicing physicians, under the general title of the Medical Practitioners' Library. They will vary in thickness from 100 pages upward and correspondingly in price. A peculiar size has been adopted for the books of this series to make them easy and convenient for handling, not burdensome to hold while reading. The type is large and handsome. They will be found in extra muslin and in flexible morocco, the latter with round corners. The volumes are sold separately. The series is inaugurated by the work of Dr. Kirchhoff on *Insanity*.

**Hygienic Measures in Relation to Infectious Diseases** constitutes a subject of more than passing interest to all practitioners of medicine. Dr. George H. F. Nuttall has condensed a mass of information as to the cause and mode of spreading of certain diseases, the preventive measures that should be resorted to, isolation, disinfection, etc., in a manner which is both valuable and instructive. A feature which is made a leading point is the practical nature of the measures which are recommended, based as they are upon their successful application. Another point which recommends this booklet of 112 pages is the fact that all the information given is placed upon a scientific basis, and for this reason is definite and of a nature permitting it to be easily carried out. The publishers, Messrs. G. P. Putnam's Sons, of New York, have gotten up this little book in handsome shape.

**Fermentation, Infection and Immunity** is a small octavo of 240 pages, by Dr. S. W. McLaughlin, of Austin, Tex., who is also his own publisher. The author has a new theory to present in regard to these processes, and he endeavors, by means of this hypothesis, to unify their primary causation and place the explanation of these phenomena in chemistry, biology, and the dynamics of molecular physics. The author first outlined his subject in serial numbers of the *Texas Sanitarian* and elaborated them more fully, adding much new matter in the construction of the book before us. He has largely pursued the inductive method of reasoning, in endeavoring to show that the "accepted principles of molecular physics, and those of chemistry and biology, if supplemented by legitimate deductions from them, are amply sufficient to account for all the known phenomena of

these processes (fermentation, infection, etc.), and also to explain their relationship and intimate nature." To those who are interested in medical metaphysics this book will prove most interesting reading. Whilst the reasoning of the author is most ingenious and contains much that is both valuable and interesting, we must confess that it has not quite converted us to his way of seeing the matter. Those desirous of obtaining a copy can do so by addressing the author as above, with the amount of the price, \$2.50.

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### Melange.

**Railway Surgeons of Ohio.**—The Railway Surgeons of Ohio are called to meet in the amphitheatre of the Ohio Medical University at Columbus, Ohio, on March 17, at 9 o'clock A. M., standard time, for the purpose of organizing an Ohio State Association of Railway Surgeons. It is hoped that all interested will make an effort to be present and take part. Those who expect to be present will please drop a line to the Secretary at Sandusky, that an estimate may be made and proper entertainment provided.

CHARLES H. MERZ, *Secretary*. S. S. THORNE, *President*.

**Missouri State Medical Association Meeting.**—We are in receipt of the following :

Editors MEDICAL AND SURGICAL JOURNAL : Permit me through the columns of your journal to call the attention of the profession to the meeting of the Missouri State Medical Association which convenes in Sedalia, May 16 proximo, and continues three days.

The committees are well manned with workers, competent, active, and zealous, who have their respective work well in hand. The officers of the Association, especially the secretaries, have done an immense amount of work for the coming sessions.

We are in receipt almost daily of letters from every quarter of the State of the most flattering character, and if this is any indication the meeting at Sedalia will be largely attended, especially by physicians residing outside of the cities.

Titles of papers should be sent at once to H. C. Dalton, M. D., Chairman Committee on Scientific Communications, 3536 Easton Ave., St. Louis, Mo., before May 1.

Correspondence relative to the business of the Association should be directed to Chas. F. Wainright, M. D., Corresponding Secretary, Kansas City, Mo.

For copies of Transactions containing Constitution and By-Laws, address Frank R. Fry, M. D., Secretary, 2610 Locust Street, St. Louis, Mo.

A. B. MILLER,

Pres't Mo. State Med. Ass'n:

Macon, Mo., Feb. 13, '93.

We would urge all to attend this meeting, as it promises to be one of the most successful held for years.

**North Missouri Medical Association.**—At a meeting of the representatives of the profession of the north part of the State, held in Brookfield, December 2, 1892, action was taken to inaugurate a society to be composed of the regular physicians of all those counties of the State north of the Missouri River, to be known as the North Missouri Medical Association. Place and time of meeting, Moberly, Tuesday and Wednesday, April 18 and 19, 1893. The following officers were elected at the meeting of organization :

President, E. Van Note, Hamilton ; First Vice-President, G. A. Goben, Kirksville ; Second Vice-President, H. H. Wilson, Trenton ; Recording Secretary, E. S. Weager, Brookfield ; Corresponding Secretary, W. T. Lindley, Hamilton ; Treasurer, J. S. Stratton, Chariton Co.

**The Medical Society of the State of New York** elected the following officers at its recent annual meeting :

President, Herman Bendell, of Albany ; Vice-President, C. L. Stiles, of Oswego ; Secretary, F. C. Curtis of Albany ; Treasurer, C. H. Porter, of Albany ; Committee on Arrangements, H. Hun, S. D. Powell, N. J. Nealis ; Committee on By-Laws, H. D. Wey, A. R. Simmons, F. C. Curtis ; Committee on Hygiene, C. E. Bruce, A. N. Bell, D. S. Burr, Louis Balch, D. W. Peck ; Committee on Legislation, D. B. St. John Roosa, Daniel Lewis, O'Leary ; Committee on Ethics, John S. Warren, Charles Jewett, Eugene Beach ; Committee on Publication, F. C. Curtis, W. W. Potter, F. D. Bailey, C. H. Porter ; Committee on Credentials, W. B. Chase, C. M. Culver, J. P. Creveling.

**A Change of Place Imperative.**—It has gradually been dawning on the minds of the members of those associations, state and national, which have selected Chicago as the place of meeting this year, that a great mistake has been made, and that such meetings can be held in that city only at the cost of great personal discomfort, and a serious expenditure of money over and above what it would cost the members were the meetings held elsewhere, says the *National Druggist*.

This fact, made apparent at the inauguration ceremonies last autumn, becomes plainer and more serious every day. Those who have written or applied in person to secure hotel accommodations in advance, have met with replies from hotel men that startled them. In most cases no arrangements, whatever, of that description could be made, or where a price for a room was named it was so excessively high that none but millionaires could afford it. Chicago hotels, big and splendid as they are, will be taxed to the utmost limit of their capabilities to take care of the transient crowd of visitors, and will be able to furnish lodging only by packing every inch of their rooms and halls with cots. The boarding-houses and private houses having rooms to let, anticipate a similar harvest. Chicago will be packed, and the price of living will be correspondingly high.

With these facts staring us in the face, what accommodations can the large associations expect to get? Without personal comfort, what value or pleasure can the members derive from attendance? These are the questions which lead us to urge upon the executive committees of the various scientific associations that have their dates for Chicago, to cancel the same at once, so that the members can have due notice of the change and make their arrangements accordingly.

This can be done and not interfere in any manner with the programme of a visit to the World's Fair. On the contrary, it will enable those who wish to visit Chicago to do so with the least amount of personal discomfort and expense. There are, within a radius of a two-hour's journey by rail of Chicago, a score of cities and towns where the associations could meet and have every comfort at a reasonable cost. Milwaukee, for instance, is but a two-hour's ride from Chicago; its hotels are numerous and magnificent, and in the season trains will be running between the cities every hour, or at even more frequent intervals. Evan-

ston, close by Chicago, almost a suburb, could care for a much larger crowd than usually attends the American Pharmaceutical Association, the American Microscopical Association, or even the American Association for the Advancement of Science. The frequent trains will enable the members to go to Chicago in the morning and return at night, or to go after the adjournment in the afternoon, spend the evening in town, and return at night. The cost of the railroad fare will not then begin to equal the difference between the hotel fares of the two places, to say nothing of the difference in comfort between sleeping four or five packed into a single room, eating their meals in crowded restaurants, poorly served, and having each his own room and getting his meals in quiet and comfort.

**Pan-American Congress.**—THE GOVERNMENT OF VENEZUELA AND THE PAN-AMERICAN MEDICAL CONGRESS.—Senor P. Ezequiel Rojas, the Venezuelan Minister of Foreign Affairs, has forwarded on behalf of his government, through the U. S. *Charge d' Affaires* at Caracas, a formal acceptance of the invitation issued pursuant to the joint resolution of the United States Congress to the various governments of the Western Hemisphere to send official delegates to the Pan-American Medical Congress. The selection of delegates has not yet been made, but the names will be forwarded at the earliest possible moment.

**SECTION IN PSYCHIATRY AND NEUROLOGY.**—Dr. C. H. Hughes, president of the section on psychiatry and neurology, Pan-American Medical Congress, has issued a manifesto of the preliminary organization of that section, in which an invitation is extended to members of the profession to join in the work, and add to the list of papers already promised by distinguished savants in neurological medicine. It is desirable that those wishing to connect themselves with this section signify their intention of doing so at once, addressing the president, Dr. C. H. Hughes, at 500 N. Jefferson avenue, St. Louis.

**SECTION OF MILITARY MEDICINE AND SURGERY.**—The following gentlemen have been duly appointed members of the Advisory Council of this Section: Col. Louis Reed, M. D., Surgeon-General N. G., Pa.; Newton L. Bates, M. D., Medical Director U. S. N.; J. H. Tryon, M. D., Medical Inspector, U. S. N.; Lieut.-Col. Eustathius Chancellor, M. D., Medical Director

N. G., Mo.; Brv't. Lieut.-Col. A. A. Woodhull, M. D., Surgeon U. S. A.; Major Jos. H. Corson, M. D., Surgeon U. S. A.; Major Geo. Henderson, M. D., Medical Director N. G., D. C.; C. N. Hoagland, M. D., Ex-Surgeon Ohio Vols.; Bedford Brown, M. D., Ex-Surgeon C. S. A.; H. C. Goodman, M. D., Ex-Surgeon U. S. Vols.; Melancthon Storrs, M. D., Ex-Surgeon Conn. Vols.; O. D. Ball, M. D., Pension Ex-Surgeon, Albany, N. Y.; Capt. H. O. Perley, M. D., Asst. Surgeon U. S. A.

GEO. M. STERNBERG,  
Deputy Surgeon-General U. S. A., Pres. of Section.

SECTION IN LARYNGOLOGY AND RHINOLOGY.—The section on laryngology and rhinology is now thoroughly organized with Secretaries in all the countries of South America as well as in the United States and Canada.

The President, Dr. E. Fletcher Ingals, of Chicago, is making a thorough canvass to secure a large number of good papers for the Section, and aided as he will be by the able secretaries, Drs. Murray and y Alonso, and the corps of honorary presidents, he feels assured of the success of this department of the Congress.

All physicians interested in this Section are requested to correspond with the secretaries for the United States.

DR. T. MORRIS MURRAY,  
(English Speaking),  
Washington, D. C.

DR. J. MARON Y ALONSO,  
(Spanish Speaking),  
Las Vegas, N. M.

SECTION OF MEDICAL PEDAGOGICS.—The Pedagogic Section will devote its attention especially to the history of the development of medical education in America.

In the papers presented by leading teachers recent advances in methods of instruction will be considered.

The *Art of Teaching*, which is regarded as a study of great interest in other branches of learning, has received hitherto but little attention from the medical profession.

The section in medical pedagogics will, therefore, be made a prominent feature of the Congress, and it is hoped that those interested in medical education will co-operate in the work of this

section, by being present and by actively engaging in the discussion of subjects presented.

Any inquiries or communications may be made through the Secretaries undersigned.

J. Collins Warren, M.D., Executive Pres't, Boston, Mass.,  
Charles L. Sander, M.D., English speaking Sec'y, Boston, Mass.,  
W. F. Hutchinson, M.D., Spanish speaking Sec'y, Providence, R.I.

NEW BY-LAWS, PAN AMERICAN MEDICAL CONGRESS. — LANGUAGES.—By-Law IX. Papers may be read in any language, providing that authors of the same shall furnish the Secretary-General with an abstract not exceeding six hundred words in length, in either of the official languages (English, Spanish, French or Portuguese), by not later than July 10, 1893, and providing further that a copy of each such paper shall be furnished in either of the official languages, at or before the time of the meeting, to the Secretary of the Section before which the same shall be read. Remarks upon papers may be made in any language, providing that members making such remarks shall furnish a copy of the same in either of the official languages before the adjournment of the session.

PUBLICATION.—By-Law X. All papers read either in full or by title shall be immediately submitted for publication in the Transactions (special regulation 3), but authors may retain copies and publish the same at their pleasure after the adjournment of the Congress.

CONSTITUENT ORGANIZATIONS. — By-Law XI. All Medical, Dental and Pharmaceutical organizations, the titles of which have been transmitted, with approval of the committee on organization, or which may hereafter be transmitted with approval to the Executive Committee, by any member of the Internatial Executive Committee, each for his own country, shall be subject to election by the Executive Committee appointed by the President, as constituent bodies of the First Pan-American Medical Congress, and each organization thus constructed shall have the right to designate as delegates all of its members attending the Congress, but no such organization shall meet at the time and place of the meeting of the Congress, as a distinct body; providing, that the Secretary of each such constituent body shall forward a list of officers and a statement of the number of members

of his respective organization, to the Secretary-General, not later than sixty (60) days before the meeting of the Congress, and shall forward a list of the delegates chosen, to reach the Secretary General before the opening of the Congress.

BY THE EXECUTIVE COMMITTEE,

February 22, 1893.

**The Eleventh International Congress of Medicine.**—The inauguration of the Eleventh International Congress will take place the 24th of September, 1893, in the presence of H. M. the King of Italy.

The work of the Congress will begin in the nineteen sections on the morning of the 25th of September. It will be continued in accordance with the arrangements to be made and published both for the general sessions and the sections. Some of the general sessions will be devoted to scientific addresses delivered by scientists of all nations.

#### LIST OF THE SERIES.

1, Anatomy. 2, Physiology. 3, General Pathology and Pathological Anatomy. 4, Pharmacology. 5, Internal Medicine. 6, Diseases of Children. 7, Psychiatry, Neuropathology and Criminal Anthropology. 8, Surgery and Orthopedy. 9, Obstetrics and Gynecology. 10, Laryngology. 11, Otology. 12, Ophthalmology. 13, Odontology. 14, Military Medicine and Surgery. 15, Hygiene. 16, Sanitary Engineering. 17, Dermatology and Syphilidology. 18, Forensic Medicine. 19, Hydrology and Climatology.

#### REGULATIONS.

1. The Eleventh International Congress of Medicine will be inaugurated in Rome on the 24th of September, 1893, and will close on the 1st of October.

2. Any physician may become an active member of the Congress by fulfilling the conditions of membership, inscribing his name, and securing his admission ticket.

3. Scientists of other professions who, through their special studies, are interested in the labors of the Congress, may acquire the rights and assume the duties of active members, and participate in the work of the Congress, both by communications and discussions.

4. The fee for admission to the Congress is twenty-five francs, or five dollars.\* It entitles to a copy of the Transactions of the Congress, which will be forwarded to the members immediately after publication.

5. The character of the Congress is strictly and exclusively scientific.

6. The work of the Congress will be divided amongst nineteen sections; every member is requested to indicate, on paying his admission fee, the section for which he desires to be inscribed.

7. The provisional committee will arrange the appointment, in the opening session, of the permanent officers. They will be: a president, three vice-presidents, a number of honorary presidents and secretaries. Each section will elect, in its first meeting, its presidents and a certain number of honorary presidents, who shall alternately take the chair during the session. Some of the secretaries will be chosen from among the foreign members in order to facilitate the recording both of communications and discussions in the different languages.

8. There will be daily sessions, either general or sectional. The times and numbers of the general sessions, and the business to be transacted in them, will be arranged by the president of the Congress.

9. The general sessions are reserved, (a) for the consideration of the common work of the Congress and of its common interests, (b) for addresses and communications of general interest and importance.

10. The addresses in the general sessions, and in such extraordinary sessions as may be arranged, will be delivered by members chosen by the committee for the purpose.

11. Papers for and communications to the Congress must be announced on or before June 30, 1893. A brief abstract of every paper and communication, with their conclusion, must be sent to the committee on or before July 31st. All of them will be printed and distributed to the members by authority of the president. Such as arrive after that date cannot be expected to find a place on the regular order of business, and will be accepted only if time will permit.

12. The business of the sections will be arranged by their presidents, who will also determine the hours of meeting, avoid-

ing those reserved for the general sessions. Two or more sections may hold joint meetings with the consent of their presidents. There will be no vote on scientific questions.

13. Fifteen minutes are allowed for the reading of a paper or communication. In the discussion, every speaker can have the floor but once, and for five minutes only. To close the discussion the author of the paper is allowed ten minutes. Additional time may be given him by the president, by special resolution of the section, if the importance of the subject under discussion appear to require it.

14. The manuscript of all addresses, papers and communications read either before a general session or a section must be handed to the secretary before the close of the meeting. A special committee on publication appointed by the president will decide, which or what part of them shall be published in the Transactions of the Congress. Such members as participated in the discussions are required to hand to the secretaries their remarks, in writing.

15. The official languages of the sessions are: Italian, French, English and German. The regulations, programmes and daily bulletins will be published in the above four languages. During the meetings, however, a member may be permitted to use, for a brief remark, any other language provided some member present expresses his willingness to translate such remarks into any of the official languages.

16. The president directs the discussions according to the parliamentary rules generally obeyed in similar assemblies.

17. Persons not classified under Article 3, who are interested in the labors of a special section, may be admitted by the president of the Congress. They will receive a special ticket on paying their admission fee; will not be entitled to a copy of the Transactions; and cannot speak in the general sessions nor in any section other than that for which they were inscribed.

18. The president may invite or admit students of medicine to attend and listen. They will be given a special admission ticket, free of charge.

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\*Money order or check to the Treasurer, Prof. Comm. L. Pagliani, Rome, Italy.

## GENERAL INFORMATION.

**JOURNEYS AND REDUCTION OF FARES.**—The provisional committee has made arrangements with the different Italian and foreign railway and navigation companies, in pursuance whereof special reduced prices have been granted on the steamers and railways of this country and of the countries which the members of the Congress are to traverse.

In Italy the members of Congress will find tickets for round trips, starting from Rome ; they will thereby be enabled to visit the most important cities and the various universities. In regard to this, further notice will be given.

**THE LADIES OF THE MEMBERS** will be furnished ladies' tickets, which will entitle them to the reduced fares granted to the members, and to participate in the festivities connected with the Congress.

**FESTIVITIES.**—Besides the receptions which the kind and hospitable citizens of Rome will offer to the members, the Italian colleagues will endeavor to return to the best of their power the kindness they experienced during their stay abroad.

On some evening yet to be decided, the members of the different sections will join at a dinner, which will be given in one of the first hotels of Rome.

The Italian physicians have formed special committees to show the most hearty and kindly hospitality towards the foreign colleagues.

**INTERNATIONAL EXHIBITION OF MEDICINE AND HYGIENE.**—On the occasion of the Eleventh International Medical Congress, an Exhibition of Medicine and Hygiene will be inaugurated in Rome, which will gather all that may practically interest physicians and specialists. A special committee has already insured the co-operation of all the most important manufacturers of the world.

**HOTELS.**—All the first and second-class hotels of the Italian capital will afford to the members, during their stay, all desirable comforts.

**Perforation of the Bowels** occurs in about eighty per cent of the cases in typhoid fever.

## Miscellaneous Notes.

**For Burns.**—The following is an excellent ointment for this purpose :

R.	Campho-Phenique .....	℥j.
	Lanolin .....	
	Ung. Aquæ Rosæ .....	āā ℥ij.
M.		

**The Lacto-Preparata**, of Reed & Carnick, as its name implies, is a substitute for milk being prepared after the most approved scientific methods. As a food for infants it has met with unqualified success and has given marked satisfaction to mothers who have fed their infants upon it.

**Pruritus Ani and Vulvæ.**—The following formula will afford relief from the itching and irritation—to be applied locally:

R.	Sodii Hyposulphit. ....	℥j.
	Acid Carbol. ....	℥ss.
	Glycerinæ .....	℥j.
	Listerine .....	℥ij.
M.		

**Learning Dentistry in Japan.**—A twelve-year-old Japanese boy sat on the floor in a dentist's office in Japan, having before him a board in which were a number of holes into which pegs had been tightly driven. He was attempting to extract the pegs with his thumb and forefinger. As the strength of this natural pair of forceps develop by practice the pegs are driven in tighter. After a couple of years at peg pulling, the young dentist graduates, and is able to lift the most refractory molar in the same manner that he lifted the wooden pegs.

### Tonic in Painful Atonic Dyspepsia.—

R.	Antikamnia .....	℥iss.
	Tinct. Nucis Vom .....	℥j.
	Tinct. Gentian Comp. ....	℥ij.
	Syr. Sarsap. Comp .....	℥iv.

M. Sig:—One teaspoonful, three times daily, after meals.

**Bromidia.**—F. Colet Larkin, M. B. and C. M., of Kingsbridge House, Avenue Road, East Cliff, Ramsgate, Eng., on January 10, 1892, writes: "It may interest you to know that I have had a most satisfactory result from the administration of your Bromidia in a case of sleeplessness, after a slight apoplexy, with partial paralysis of the right cheek and arm. The patient (male, sixty-three years old) suffered from weak heart, and before coming under my care had been given sulphonal, paraldehyde, etc., without sleep being obtained. The first night here he received one drachm of Bromidia and got seven to eight hours quiet sleep without any ill after-effect from the drug. The same dose continues to give the patient some hours' sleep every night."

**Composition of Syrup of Figs.**—Because the California Fig Syrup Company thought best to name their laxative compound the "Syrup of Figs" it does not follow that the active principle of the preparation is made from the fig. Instead of this being the case, they state freely to the profession that the laxative properties of the syrup are obtained from senna. Hare states in his new work on therapeutics that both Rutherford and Vignal assert that senna acts very materially in increasing the flow of bile. Hess says that the drug acts directly as a stimulant upon the mucous membrane and so produces a local peristalsis as it is moved along. Hare recommends it especially in the treatment of the constipation of pregnancy. As an ingredient in the compound licorice powder, it is one of the oldest and best known drugs. Recognizing the sterling worth of this drug when employed in laxative doses, the California Fig Syrup Company has so combined it with other agents that it is both pleasant and effective. It might be called a family laxative, useful in all those cases where a freer action of the bowels is desired. The physician is often puzzled to know exactly what to prescribe when the only remedy indicated is something to increase peristaltic action. The therapeutics of senna warrants its recognition at once, while the palatableness of the preparation points to Fig Syrup as the best medium by which this drug can be administered.

It is interesting to note in this connection that the California Fig Syrup Co. has just received a decision from the U. S. Court of Appeals confirming their right to the exclusive use of the name "Syrup of Figs" or "Fig Syrup" when applied to a laxative medicine.

"Doctor, I come to see you about my youngest brother."

"What is the matter with him?"

"One of his legs is shorter than the other, and he limps. Now, what would you do in a case of that kind."

"I reckon I'd limp, too."

**Trional**, under quite recent clinical tests, is found to have a special value in uncomplicated agrypnia, or wakefulness with a certain amount of excitement. In these cases it is said to have acted promptly and effectively in doses of 1 to 2 grammes. Trional is useful also in convalescence from the abuse of cocaine and morphine. Some of the reports state that doses of 2 grammes would usually procure for these patients a sleep of from 7 to 9 hours duration. According to a recent report by Boettiger, dementia with hallucinations was very freely influenced by trional. The same writer reports thirty-five cases of insomnia, with physical disturbances in the insane. These were primary or secondary; or were accompanied by moderate delirium or motor restlessness. Doses of 1 to 2 grammes of trional promptly induced a sleep of six to ten hours. The full report of the cases referred to was published in the *Berl. Klin. Woch.*, No. 42, 1892.

# THE ST. LOUIS. Medical and Surgical Journal.

Whole No. 628.

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## Original Communications.

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THE VALUE OF SURGERY IN LEPROSY. By BEAVEN RAKE, M. D.,  
(Lond.), Medical Superintendent of the Trinidad Leper Asylum.

Our present knowledge, we are reluctantly compelled to admit, is powerless to cure leprosy. This fact being established, there is I fear too often a tendency to become discouraged and not only to abandon efforts to cure, but also to neglect many measures which can materially relieve those suffering from the disease. I have for some time been of opinion that surgery can do far more than medicine in the palliative treatment of leprosy, and it has seemed that a fitting subject for this the jubilee year of the ST. LOUIS MEDICAL AND SURGICAL JOURNAL will be a short retrospect of surgical work done in the Trinidad Leper Asylum during a period of six years.

*A priori*, it might be supposed that in a wasting exhausting disease like leprosy wounds, would heal slowly and imperfectly, and that troublesome chronic suppuration might be set up with consequent lardaceous and other changes. This we know is often the case in tuberculosis, a disease which every year is shown to be more and more closely allied to leprosy. Experience, however, tells us that this is not the case. Incisions in lepers usually

heal with astonishing rapidity, producing firm cicatrices as quickly as in non-leprous subjects. Indeed healing sometimes seems to take place more rapidly in lepers than in those who are free from the disease.

I have naturally been led to search for the cause of this rapid healing, and I think that an explanation may perhaps be found in the rapid clotting which takes place in the blood of lepers. This is usually so marked that the labor of tying or twisting bleeding points is very materially lessened in operations on lepers. Occasionally the blood coagulates so rapidly that if a minor operation such as incision of a sinus is done over a basin of water, the blood settles at the bottom of the vessel in round compact clots.

The fibrin in the blood of lepers has been estimated by Danielssen and Boeck\* who found in fourteen analyses that the percentage ranged from 0.22 per cent. to 0.6 per cent. Hillaire† also in three analyses found the percentage to be from 0.31 to 0.61. In fifty analyses which I made at the Trinidad Leper Asylum‡ I found the range to be from 0.12 to 1.87, the average being 0.76. It is quite possible that my percentage may be rather high by reason of a somewhat rough method of analysis, but even allowing a margin for errors of experiment, the results will I think be considerably above 0.2 per cent. the amount of fibrin present in normal blood. I am now engaged in making further and more exact analyses.

Another fact which seemed to indicate the facility with which the blood of lepers coagulates was the discovery in the body of an anæsthetic female leper who died in the Trinidad Asylum of a large thoracic aneurism filled with firm laminated clot.§ The centre of the clot had begun to break down into grumous débris.

Whatever the explanation, the fact remains that lepers heal well when operated on, and we now come to the practical details. I propose first to give a short table showing the chief operations done at the Trinidad Leper Asylum during a period of six years, and then to make a few remarks on the various operations, giving some illustrative histories.

\* *Traité de la Spedalskhed*, pp. 238, 296.

† *Ann. de Dermat. et de Syphilig.* tome V, No. 3.

‡ *Lancet*, Jan. 9, 1892, p. 83.

§ *Path. Soc. Trans. Lond.* Vol. XXXVIII, p. 120.

## OPERATIONS PERFORMED IN THE TRINIDAD LEPROSYP ASYLUM DURING A PERIOD OF SIX YEARS.

OPERATION.	FORM OF LEPROSY.									
	Tuberculated.		Anæsthetic.		Mixed.		Total.		Grand Total.	
	M	F	M	F	M	F	M	F		
<i>Amputation</i>										
Through thigh.....	1		1				2		2	2
knee.....			1				1		1	1
leg.....			2		2	1	4	2	6	6
ankle.....			1				1		1	1
Of great toe.....	1		21	1	3		25	1	26	26
toe.....			34	1	1		35	1	36	36
Through arm.....			2				2		2	2
Of thumb.....			1				1		1	1
finger.....			31	2	8		39	2	41	41
<i>Stretching of</i>										
Sciatic.....		1	20	2	6		26	3	29	29
External popliteal.....			8	1	3		11	1	12	12
Median.....	3	3	23	3	8	2	34	8	42	42
Ulnar at elbow.....	3	1	7	1	7		17	2	19	19
wrist.....	1		3		1		7		7	7
Supra orbital.....			3				3		3	3
Facial.....					1		1		1	1
<i>Removal of</i>										
Necrosed bone or cartilage.....	4	2	509	23	92		605	25	630	630
Tubercles from face or arm.....	13	10			8	3	21	13	34	34
conjunctiva.....	1				1		2		2	2
Exuberant granulations.....	2		8		5		15		15	15
Recurrent keloid.....							3		3	3
Papilloma.....			1				1		1	1
Fibroma.....			3				3		3	3
Yaws.....			1				1		1	1
Tubercles.....			1		1		2		2	2
Eyeball.....			1				1		1	1

## OPERATIONS PERFORMED IN THE TRINIDAD LEPROS ASYLUM DURING A PERIOD OF SIX YEARS.—Continued.

OPERATION.	FORM OF LEPROSY.										Grand Total.
	Tuberculated.		Anæsthetic.		Mixed.		Total.				
	M	F	M	F	M	F	M	F			
<i>Removal of</i>											
Belly of gastrocnemius .....				1				1	1	1	1
Hæmorrhoids .....			1					1	1	1	1
Enlarged gland .....			1					1	1	1	1
Cyst .....											
<i>Ligature of</i>											
Vessels supplying tubercle of conjunctiva .....	3								5	5	5
Hæmorrhoids .....				1				1	1	1	1
<i>Incision</i>											
Of abscess, sinus, ulcer, or to relieve tension .....	33	7	786	46	141	3	960	56	1016	1016	1016
patellar bursa .....			1				1		1	1	1
cyst of ear .....			1				1		1	1	1
For elephantiasis .....	1								1	1	1
Tracheotomy .....					1				1	1	1
Circumcision .....	10		3		3		16		16	16	16
<i>Intestinal Operations.</i>											
Herniotomy .....			1				1		1	1	1
Linear cauterization of prolapsed rectum .....			1				1		1	1	1
<i>Ophthalmic Operations.</i>											
Extraction of cataract .....			3	1	1		4	1	5	5	5
Iridectomy .....			3		3		6		6	6	6
For pterygium .....	5		1				6		6	6	6
Tattooing eye .....					1				1	1	1
<i>Miscellaneous.</i>											
Skin grafting .....									5	5	5
Paracentesis abdominis .....	2	2							2	2	4
TOTAL .....	83	26	1487	88	300	10	1872	124	1986	1986	1986

From this table it will be seen that during the period already mentioned some 1,996 operations were performed. I have put down the period as six years, for although I have now been connected with the asylum for nine years, I have been absent from the colony for nearly three years at one time and another, and I have thought it better to consider only the operations done by myself, as I can speak of them more fully and readily than of those done by others. It may be well to state here that when I arrived in the colony in 1884 the number of beds at the Asylum was 146—102 male and 44 female. There are now 216 beds—166 male and 50 female. It will of course be understood that the number of operations given in the table does not represent an equal number of patients. Many separate operations are often done on one patient. These may be of the same kind or of different kinds.

On looking at the table it is at once evident that by far the most operations were performed on anæsthetic lepers. Thus 1,487 were done on anæsthetic males and 88 on anæsthetic females. Amongst tuberculated lepers only 83 males were operated on, and 26 females, while mixed leprosy occupies an intermediate position, the operations on males numbering 300 and those on females 10.

The number of women in the Asylum is 50 out of 216 or rather less than a quarter of the inmates. Nine years ago as already pointed out, the female beds were 44 out of 146, or rather less than a third. The total operations on women are, however, only 124 out of 1,996. To preserve the ratio they ought to be about 500. This lower proportion of operation cases amongst the female lepers is doubtless explained by the fact that they do less hard out-of-door work than the men. The latter are allowed to cultivate gardens and to keep half the proceeds of the sale of the vegetables they raise. The love of gain often prompts them to work beyond their strength, and the results are ulcers and abscesses of the fingers and hands caused by friction of the gardening tools against the anæsthetic skin. Necrosis of bone often follows, especially amongst the East Indian inmates, in whom the love of making and hoarding money is far more dominant than in the negroes.

The various operations may now be briefly commented on:

*Amputations.*—Two amputations through the thigh were performed. One in a tuberculated leper was done at the patient's request in order to get rid of a leg which was affected with elephantiasis Arabum.\* Free incision through the thickened subcutaneous tissue had been tried, but only slight and temporary diminution in the size of the leg had been obtained.

The flaps united rapidly—indeed too rapidly, for in fourteen days the boy died of pyæmia, the necropsy showing infarcts in the lung. I regretted afterwards that I had not left the flaps open in order to ensure absolutely free drainage, but the infiltration had not extended above the knee, and a drainage tube was fixed in the stump.

The existence of leprosy and elephantiasis Arabum in the same patient is very rare. Vincent Richards† examined 636 patients suffering from elephantiasis at Balasore, and found only two lepers amongst them. I have never seen another case in which the two diseases were present together.

The second case of amputation through the thigh was done for gangrene of the foot and leg, when the patient was almost moribund.‡ The stump healed in three months, some delay having been occasioned by sloughing of the flaps. The patient died five years and nine months later of granular kidney and dysentery. In this case there is every reason to believe that the operation prolonged life during the period mentioned.

An amputation through the knee§ was done for a similar reason—leprous gangrene. In this case there was considerable sloughing of the flaps. The patella and much dead tissue were subsequently removed. The stump never entirely healed, but a granulating surface some three inches in diameter was left. The patient died of pleuro-pneumonia one year and ten months after the operation. It is probable that in this case the freely discharging, granulating stump did much good by acting as an efficient drain. The patient was a Portuguese and it is noteworthy that lepers of this nationality get the disease very badly.

In these two cases I was not surprised to find sloughing of the flaps, for I amputated before the line of demarcation had formed, a proceeding usually condemned in operations for gangrene. I

\* *Lancet*, Jan. 25 1890, p. 194.

† Fox and Farquhar. *Skin Diseases of India*. Appendix VIII. p. 135.

‡ *Brit. Med. Journal*, March 7, 1885, p. 484, and March 1, 1890, p. 477.

§ *Ibid.*

believe that had I waited for the line to form, both lives would have been sacrificed.

The six amputations through the leg were also for ulceration and gangrene. One was done at the request of a patient *in extremis*, to relieve pain and remove the stench of the gangrene and so indirectly promote euthanasia. These results were attained, the patient living about four days after the operation, in comparative comfort. In another case the patient sank soon after the amputation, exhausted by the long continued suppuration, and unable to stand the additional drain caused by the hemorrhage attending the operation. Two other patients died from other diseases at varying times after their legs were removed, while the other two are still living and in fair health. One of these cases has already been published in this JOURNAL.\* The other may be given here:

CASE I.—*Anæsthetic Leprosy; Perforating Ulcer of Heel; Stretching of Great Sciatic; Temporary Improvement; Subsequent necrosis of bones and gangrene of foot; Amputation of Leg; Recovery.*

Mahdsinghu, Hindu, aged 40, was admitted to the Trinidad Leper Asylum on September 9, 1887, with anæsthetic leprosy of three years' duration. There was almost complete anæsthesia of the lower extremities, the skin being pale, shining, and scaly. The hands were anæsthetic and there were numerous anæsthetic patches on the upper extremities. Over the left heel was a perforating ulcer almost half an inch deep, and to the inner side of the heel was a superficial ulcer. The whole of the foot was swollen and he said it felt heavy, there was also an ulcer on the middle toe of the right foot.

Sept. 23. He was given chloroform, and the left sciatic nerve was stretched. At the same time the right external popliteal and the left median were stretched. The incisions were closed with silk sutures.

Sept. 26. The sutures were removed from the incision over the sciatic. There was pain, but not much discharge. The incision over the median was found to have healed by first intention, and that over the external popliteal had nearly healed. Sensation appeared to have improved in the left hand, but not in the left foot. There was increased discharge from the perforating ulcer.

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\* ST. LOUIS MEDICAL AND SURGICAL JOURNAL, June 1888, page 337.

Sept. 30. The incision over the sciatic was gaping and filling up with healthy granulations. The ulcer over the heel was slightly smaller.

Oct. 5. The ulcer on the left heel was nearly covered with a thin cicatrix, also that on the right middle toe.

Nov. 2. The ulcer on the left heel was nearly healed, and that on the right middle toe quite healed.

Feb. 3, 1889. The right great toe and the whole foot were found to be swollen.

Feb. 6. The toe was incised and fragments of bone were removed.

Feb. 15. The head of the first metatarsal bone and other fragments were removed from the right great toe.

Toward the end of 1889, a few more fragments of bone were removed.

During the first four months of 1890, necrosis and ulceration of the right foot progressed more rapidly. Several sinuses formed in the sole and were slit up. Much dead bone and sloughing tendon were removed.

April 16, 1890. The right calcaneum was found to be carious.

April 29. All the slough was found to have come away from the foot, and healthy looking granulations had formed.

May 2. The foot suddenly became swollen and blue. There was some induration above the heel. Numerous superficial incisions were made to relieve tension.

May 6. A line of demarcation had formed. The patient asked for amputation.

May 7. He was given chloroform, and the leg was amputated at the upper third. The anterior and posterior tibial and external popliteal arteries were ligatured. The flaps were closed with wire sutures and a drainage tube was put in.

Dissection of the amputated limb showed the line of demarcation to be well formed. The gangrene had reached the ankle-joint and the cartilages were discolored. Pus was burrowing upwards along the tendons round the joint. Induration extended up the calf as far as the line of amputation.

May 12. There was a little smell from the stump and the cut end of the bone was found to have perforated the skin.

May 21. The drainage tube was removed.

May 25. The stump was healed, except the two extremities of the incision, and where the bone projected.

June 4. The bone was completely covered with granulations.

June 25. The necrosed anterior edge of the cut end of the tibia was removed. The stump completely healed two or three weeks later, and he was soon afterwards going about on a wooden leg.

Two main points are noteworthy in this case; first, the temporary improvements as shown by the healing of the ulcer, which followed nerve stretching; and, secondly, the rapid healing which took place after amputation in spite of the drain which he had suffered from long continued suppuration and eventual gangrene. As was pointed out above, there is reason to believe that a freely discharging surface often does good in leprosy.

One amputation was performed through the ankle joint, also for ulceration and gangrene.

Amputation of the great toe was found necessary in 26 cases. Necrosis of the bones of the great toe is very common, the disease sometimes beginning in the toe, and sometimes spreading from a perforating ulcer further back. When all the bone has come away piecemeal, a useless flail-like member is left, which impedes walking, and which the patient usually begs to have removed.

The same remarks apply to amputation of other toes, which operation was performed thirty-six times. If once the bone begins to come away in any quantity and with rapidity, the toe seldom closes satisfactorily, and operative interference is usually necessary. Where the process of elimination is more gradual, the tissues adapt themselves better, and greatly shortened toes may often be seen in which the nail is transposed from the last to the first phalanx, all the intermediate phalanges having been thrown off or absorbed.

The two cases of amputation of the arm have already been published.\* They were both of them done for diffuse acute suppuration which had traveled from the hand up the forearm, burrowing amongst the muscles. In one case there was a firm cicatrix in twenty-seven days, and the patient gained flesh. He died, however, eight months later of phthisis. In the second case, the patient, a Hindu, died of hæmorrhage after the amputation, the fatal result, no doubt, being assisted by the long continued suppuration which had rendered the operation necessary.

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\* *Brit. Med. Jour.*, Sept. 19, 1885, p. 545.

To the amputation of thumbs and fingers the same remarks apply as in the case of toes. A rapid and firm cicatrix is usually obtained. In nine patients I have found constriction of fingers and toes closely resembling the condition known as ainhum. In several cases the extremity hung by a narrow pedicle, and a snip with a pair of scissors was all that was necessary to separate it. All the bone had usually disappeared from the end thus constricted. I have not yet arrived at a satisfactory explanation of the cause of this condition.

*Nerve-Stretching.*—The next group of operations to be considered is the stretching of various nerves. The operation has been done 113 times at the Trinidad Asylum. As an account of the cases has already been published,\* it will be sufficient to give a short summary of the results obtained. One hundred cases have been taken, in order that percentages may be more readily seen. An analysis of the cases is shown in the following table:

	Tuber- culated.		Anæsthetic.		Mixed.		Total.
	M	F	M	F	M	F	
Total cases .....	7	5	57	7	22	2	100.
Total patients operated on.....	3	3	36	4	13	1	60.
<i>Nerves stretched.</i>							
Sciatic .....		1	17	2	6		26
External popliteal.....			7	1	3		11
Median .....	3	3	22	3	7	2	40.
Ulnar at elbow.....	3	1	8	1	5		18.
Above wrist.....	1		2		1		4
Supra orbital.....			1				1
							100
<i>Reasons for operation.</i>							
Ulceration .....		3	21	4	10		38
Pain .....			7		2		9
Anæsthesia .....	2		27	3	1		33
Tuberculation.....	5	2			9	2	18
Necrosis .....			2				2
							100
<i>Results of operation.</i>							
Relief.....		3	30	4	10		47
No relief.....	7	2	24	3	11	2	49
Doubtful.....			3		1		4
							100
<i>State of nerve when exposed.</i>							
Enlarged .....	5	3	27	1	10	2	48
Not enlarged.....		2	18	5	9		34
Not noted.....	2		12	1	3		18
							100

\* *Brit. Med. Jour.* Dec. 22, 1888, p. 1378.

Victor Horsley has shown that when the lumbar cord is exposed in the dead body, and the great sciatic nerve is stretched, the stretching is observed to extend to the sacral plexus, and the nerve roots are dragged down, shaking the cord. This experiment was repeated at the Trinidad Asylum with similar results.

Starting with the theory that the changes observed after nerve stretching are due to disturbances in the spinal ganglia produced by this shaking, it would be expected that in practice the best results would be obtained after stretching of the great sciatic, which is nearer the ganglia than any other nerve usually operated on. This is found to be actually the case.

I will now briefly review the reasons for which nerve stretching has been done in Trinidad lepers.

*Ulceration.*—Various nerves were stretched in 38 of the 100 cases. More or less relief was obtained, especially in perforating ulcers of the soles. These often healed in a few days. A fallacy which must be borne in mind here is, that stretching of the sciatic necessitates remaining in bed for some days, and it is therefore difficult to say to what extent the good result is due to this rest. It has always seemed to me that the rapid growth of granulations increased discharge, and thin, white cicatrix, spreading from the edge of the ulcer within a few days, point to a direct trophic influence more rapid in its effect than mere rest. Unfortunately, perforating ulcers treated in this way have a tendency to break down again; and, as I shall show presently, I have since found a more effectual way of dealing with them.

*Pain.*—Very definite results were obtained in those cases in which nerve stretching was done to relieve pain, especially when this was associated with perforating ulcer. There were nine such cases in the 100. In two of these the pain was so severe that the patients begged for amputation, but after the nerves were stretched the pain vanished almost at once.

In another case the right sciatic was stretched for a painful gangrenous ulcer of the foot. The ulcer became cleaner, the pain went away, and the patient asked that the operation might be repeated on the left side for a similar condition of that foot. The amount of relief, however, was less here, for, though the ulcer became a little cleaner for a few weeks, gangrene eventually supervened in both feet, and the patient died five months later.

In two cases in which the pain recurred four months and one

year, respectively, after the sciatic had been stretched, the external popliteal of the same side was stretched with good result.

Considerable relief was obtained from stretching the supra-orbital in a case in which mercury and potassium iodide had failed to effect much change in the thickening and neuralgia. The thickening remained while the pain disappeared.

*Anæsthesia.*—In 33 of the 100 cases the operation was performed for anæsthesia, but in very many instances no difference whatever was noticed after the operation. In some of the earlier cases there appeared to be some improvement in sensation for as long as a year after the operation, and in other cases slight temporary diminution of anæsthesia was noted. On the whole, the results of nerve stretching for anæsthesia cannot be considered satisfactory.

*Tuberculation.*—In eighteen cases nerves were stretched in order to determine if any effect could be thus produced on the growth of tubercles or on leprous infiltration of the skin. Measurements of the fingers were taken, but the result proved absolutely negative.

*Necrosis.*—In two cases nerve stretching seemed to facilitate the separation of dead bone. There was increased discharge from the sinuses, and fragments of bone were removed ten days and eleven days respectively after the operation.

The results may be summarized as follows:

1. More or less relief was obtained in 47 of the 100 cases, or nearly half.
2. The nerve when exposed was found to be enlarged in forty-eight cases, or nearly half.
3. The chief indications for the operation are perforating ulcer, some cases of necrosis, and pain associated with perforating ulcer or peripheral neuritis.
4. The great sciatic is the most satisfactory nerve to stretch, as it is nearer the spinal ganglia.

The following case illustrates fairly well the results to be obtained from nerve stretching:

CASE II.—*Mixed Leprosy; Gangrenous Ulcers of both Feet; Stretching of both Sciatics; Temporary Relief; Eventual Gangrene of both Feet; Death.*

Charles Vesprey, colored, aged 21, was admitted to the Trinidad Leper Asylum on May 13, 1886, with mixed leprosy of six

year's duration. The extremities were wasted and anæsthetic for the greater part of their extent, and the skin was dry and scaly. The fingers were ulcerated and the dorsa of the feet were occupied by large ulcers.

Oct. 18. The ulcer on the outer side of the right foot had become gangrenous.

Oct. 22. The ulcer had become a little cleaner after being dressed with charcoal poultices.

Nov. 3. The ulcer was spreading fast on the right foot, and the cicatrix of the old ulcer on the left foot was also breaking down. The patient was given chloroform, and the right sciatic was exposed and forcibly stretched. The fibres were rather brittle.

Nov. 5. The ulcer on the right foot was clean and beginning to heal. That on the left foot was also much cleaner and had less smell.

Nov. 9. The right ulcer was still healing. The left was quite clean and almost dry. He said the left foot was less painful when put to the ground.

Nov. 12. Patient sat up.

Nov. 29. There were thick healthy granulations over the ulcer of the right foot. There was no odor.

On the dorsum of the left foot was a large, unhealthy looking ulcer, with very offensive smell. On its floor were greyish-yellow patches of lymph. The foot was swollen and painful.

As the patient requested that the operation which was done on the right side might be repeated on the left, he was given chloroform, and the left sciatic was stretched.

Dec. 1. The ulcer on the left foot was cleaner, and the patient was sitting up.

Dec. 11. The ulcers on both feet were healing well.

Dec. 27. Gangrene was commencing in the ulcer of the left foot.

Dec. 29. Dead bone and slough was removed from the left great toe.

Jan. 24. The ulcer was clean again.

March 14. It again became gangrenous, and the patient about this time complained of dryness of the throat and tongue, and diarrhoea.

April 25. The ulcers on both feet were becoming gangrenous again.

May 6. Patient died this morning. He had been gradually sinking for the last fortnight.

At the necropsy the body was found to be extremely wasted. The tubercles on the face had been absorbed. Gangrenous ulcers involved the greater part of both feet. The fingers were ulcerated. The median nerves were dusky in color and much thickened. The sciatics showed no evidence of having been stretched, and appeared normal. In the right lung was an ulcer almost the size of a cob-nut, and with thickened walls. Higher up was a small patch of consolidation. The pleura was adherent at the right apex.

The most interesting point in this case was the improvement which took place in the ulcers of both feet after the right sciatic had been stretched. This seems to support the theory that the changes are due to shaking of the spinal ganglia. The improvement was unfortunately only temporary, the patient dying soon after from exhaustion and septic absorption consequent on the progress of the leprosy.

*Removals.*—Necrosis of bone, as was pointed out above, is extremely common, especially in anæsthetic leprosy, and the removal of sequestra is frequently required.

Of 630 removals of dead bone and cartilage, 532 were in anæsthetic lepers, and 92 in mixed lepers, while only six were in those suffering from the tuberculated variety. Ulcers and sinuses usually granulate and heal readily after removal of dead bone or cartilage, though in some cases, as was already shown, amputation is afterwards necessary.

Excision of tubercles from the face, trunk or extremities is often followed by encouraging results for a time. In an article published some years ago,\* I gave some photographs showing the amount of relief which might be expected from the operation. After free excision I usually apply strong carbolic acid and then dust over with tannin to form crusts. When the knife has gone well beneath the tubercles recurrence does not take place in the cicatrix. Unfortunately, in a year or two fresh tubercles appear in the surrounding skin and in other parts of the body, and the only hope of further relief lies in repeating the operation.

The removal of tubercles from the conjunctiva is unsatisfactory, for the cornea is usually involved early, and complete extirpation of the mass is then impossible.

\* *Brit. Med. Journal*, June 9, 1888, p. 1214.

Troublesome exuberant granulations sometimes make their appearance in lepers at the orifices of sinuses or in the ulcers of the fingers. Such granulations were removed fifteen times.

Keloid was excised three times in the same patient. The growth recurred in the original site at short intervals. It was probably unconnected with the leprosy, and it may here be remarked that keloid is very common in negroes—more so, I think, than in white subjects.

Fibroma was removed three times—twice in one patient and once in another. It also appeared to have no connection with the leprosy.

Troublesome papillomata sometimes form on the feet of lepers, apparently as a result of disordered nutrition. Removal was necessary in one case.

Yaw not infrequently occurs in lepers, though the two diseases are entirely distinct. Obstinate yaw tubercles can sometimes be excised with advantage, mercury and potassium iodide being given internally at the same time. This procedure was adopted in two cases.

Of excision of the eyeball, of hæmorrhoids or of an enlarged gland it is unnecessary to speak in detail. The latter was situated above the elbow, and had become enlarged in consequence of absorption from ulcers of anæsthetic fingers.

The belly of the gastrocnemius was removed in the case of an old standing ulcer situated on the calf. The mass of muscles was standing out from the edges of the ulcer and was covered with exuberant granulations. After excision, grafting with skin from the same patient gave good results, though the woman left the asylum too soon for a complete cure to be effected.

A solitary cyst was removed from a patient with mixed leprosy. It was situated close to the lower ribs beneath the fibre of the latissimus dorsi. Numerous daughter cysts were found in its cavity, but no hooklets.

*Ligatures.*—The vessels supplying tubercles of the conjunctiva were ligatured in five instances. This operation sometimes checks the growth of the tubercle temporarily, but at the best, it is only palliative. Collateral circulation soon becomes established and the tubercle goes on increasing.

Ligature of hæmorrhoids was performed as in non-leprous patients and with similar results.

*Incisions.*—Under this head come what are probably the most important operations in leprosy. I refer to incisions of ulcers, or sinuses, or incisions of leprosy tissue made in order to relieve tension. The total of these operations was 1,016. During the six years under consideration it has been my practice to incise freely down to bone on the first indication of necrosis of leprosy extremities. This treatment I am convinced has been largely instrumental in averting gangrene or diffuse suppuration. When I first came to the asylum these complications were not infrequent. Now they are almost unknown.

A modification of this treatment has lately been applied to perforating ulcers with good results.\* A bistoury is passed through from the sole to the dorsum of the foot, and all tissues are divided forward, the bistoury being brought out between the toes. If the ulcer happens to be nearer one side of the foot, the bistoury is brought out laterally. The gaping wound thus made is stuffed with lint and allowed to granulate up from the bottom. Hæmorrhage is usually slight and is easily controlled by the wedge of lint in the wound and by bandaging. This treatment of perforating ulcer has been adopted twenty-four times. The following is a typical case:

CASE III.—*Anæsthetic leprosy; Perforating ulcer of right foot; Bistoury passed through the dorsum and foot slit open forward; Firm cicatrix in six months; Death two and a quarter years later from suppuration and gangrene of left arm.*

Sibu, Hindu, aged 44, was admitted to the Trinidad Leper Asylum on March 1, 1887, with anæsthetic leprosy of five years' duration.

March 18, 1889. Several fragments of bone were removed from a perforating ulcer of the right sole.

June 15. A probe was passed through this ulcer to the dorsum of the foot and a counter opening was made.

July 29. A bistoury was passed through to the dorsum, and all the tissues were slit up forward to between the toes. The incision was stuffed with lint.

August 5. The wound was granulating well and there was no pain. Another sinus was slit up.

August 16. The necrosed head of a bone was loose and was removed.

\* *Brit. Med. Journal*, Nov. 8, 1890, p. 1059.

August 21. The incision was healing well from the bottom.

February 1, 1890. The incision was firmly healed, and there was a long thin cicatrix. There was an old chronic ulcer on another part of the foot, but not perforating and not painful.

May 16, 1892. There was brawny swelling of the left arm. A sinus was slit up.

May 20. The swelling had extended to the elbow. An abscess was incised just below the elbow.

May 25. The swelling of the hand, forearm and arm, were going down. The tissues over the elbow were separating in large sloughs. He died the same evening.

The necropsy next day showed abscesses burrowing in the left forearm and half way up the arm. The tissues about the elbow were gangrenous.

The body was fairly nourished. A firm, thin cicatrix on the dorsum and sole of the right foot marked the former incision of the perforating ulcer. Viscera normal.

It is interesting to notice in this case that in spite of the rapid destruction of tissue which was going on in the left upper extremity, the cicatrix in the right foot remained properly firm and there was no recurrence of ulceration here.

The next case shows in a very remarkable way the recuperative power of leprosy tissues after free incision.

CASE IV.—*Anæsthetic Leprosy; Extravasation of Urine; Free incisions; Sloughing of Scrotum; Urinary Fistula; Ultimate complete recovery.*

Edward Rawlins, negro, aged 25 years, was admitted to the Trinidad Leper Asylum on Nov. 11, 1884, with a history of anæsthetic leprosy for five months.

During the first three years' of his stay in the asylum, it was found necessary to amputate both great toes for necrosis, and various sinuses were incised, and fragments of dead bone removed from both feet.

It was noted also that he sometimes complained of vertigo and tinnitus. He had hallucinations and fits of anger which seemed to be almost maniacal. Otherwise he was in fair general health.

Dec. 12, 1887. Temp. 101°. Pulse fair. Tongue much furred. Billious vomiting. The left side of the scrotum was tense, dusky red, very tender, and covered with blebs. A

hard painful swelling extended up the inguinal canal to the abdomen, but there was no impulse and the bowels were free. Attempts to pass a No. 10 catheter failed. A little blood-stained urine followed after it was withdrawn.

He was given chloroform, and the tissues of the scrotum and perinæum were freely incised, the right testis and epididymis being exposed. Much dirty, highly ammoniacal fluid escaped. The inguinal canal was found to be quite free and the finger was passed up to the internal ring. A counter-opening was made at the lowest part of the scrotum, and a drainage tube was passed down by the side of the testis. A No. 10 catheter was passed and tied in. Only a little blood came from the catheter.

6 P. M. The pain was much less. Said urine had passed by the side of the catheter and from the incision in the scrotum.

Dec. 13. Temp. 101.5°. Much urine had passed by the side of the catheter, and urine had also risen in the catheter. Much blood-stained discharge from incisions. Tissues round lowest incision sloughing. Tongue very much furred. Some pain on pressure over bladder and inguinal canal, but much less than yesterday.

Dec. 14. Said urine was not flowing from incision in scrotum. Catheter and drainage tube were removed. Urine ammoniacal. Sloughing going on round incisions.

Dec. 16. Temp. 101.4°. Urine passed freely by penis, but followed by blood and pain. Sloughing of tissues was progressing on left side of scrotum and up left cord. In line of left inguinal canal and Poupart's ligament to anterior superior spine of ilium was brawny hardness, redness and intense tenderness, and apparently deep fluctuation.

Dec. 17. Temp. 101.4°. Swelling and redness had increased along Poupart's ligament, and there was undoubted fluctuation. An incision about an inch long was made over the anterior superior spine, and several ounces of thin, dirty pus escaped. Sloughing was progressing in the scrotum but there was no escape of urine from the incisions.

Dec. 18. Temp. 100.3°. Tongue a little less furred. The incision made yesterday was discharging freely and there was far less tenderness on pressure. Line of demarcation was forming on scrotum and sloughs were separating. Left testis and epididymis were sloughing out.

Dec. 19. Temp. 100.4°. There was still some tenderness over Poupart's ligament, and pus could be squeezed out along cord. Pus was still escaping from the incision over the anterior superior spine.

Dec. 20. Temp. 103.2°. Pus could still be pressed down along cord.

Dec. 23. Temp. 103.2°. A large piece of slough had separated from the scrotum, leaving both testes exposed. Urine was dribbling through a fistula on the left side of the scrotum. None came by the penis. There was still fullness and tenderness in the left groin.

Dec. 24. Temp. 101°. Hardly any pain in the groin, but a little has escaped along cord. Granulations on scrotum were clean. Tongue clean. Appetite good.

Dec. 27. Fever gone. Sat up. Pain and swelling had gone from groin. Some urine had flowed by penis yesterday, and some regurgitated and came through fistula.

Dec. 30. Clean granulating surface on scrotum exposing both testes. All the urine was coming by the fistula, causing pain on the left side of the scrotum when it passed.

Jan. 2, 1888. A No. 9 catheter was passed without much difficulty and tied in. Urine flowed through it. The catheter however came out the same afternoon.

Jan. 4. Walking about. Urine passed by penis, but some still came by fistula.

Jan. 9. Scrotum was granulating and healing well. Most of urine came by penis. Was wearing a suspensory bandage and walking about.

Jan. 25. All urine passed by penis. Two small granulating surfaces, one on each side of the scrotum, were healing fast. They entirely healed soon after.

In this patient, who was a confirmed leper of some years' standing, who had been constantly losing bone from necrosis, and from whom pieces of bone are still being removed from time to time, there was enough sloughing of the tissues of the scrotum and perinæum, from the extravasated urine, and enough septic absorption to kill many subjects who are not lepers. He, however, made a perfect recovery.

In the diffuse brawny swelling which often occurs without supuration in the legs and arms of lepers, I find long incisions

from the knee to the ankle, or from the ankle to the toes, or from corresponding distances in the upper extremities, of great value in relieving pain and tension. The patients often ask for these incisions.

An inflamed patellar bursa, and a cyst in front of the ear were also incised with great relief to the patient and ultimate cure.

Incisions for elephantiasis Arabum have been already referred to, as preceding amputation. A diminution of three inches in the circumference of the leg was obtained, but the incisions soon closed, and the leg became as large as before the operation.

Tracheotomy was performed in a patient who had leprosy of the larynx, the patient eventually dying of phthisis. This operation has been very successful in Norway. Lepers there have worn tracheotomy tubes for several years. The following are notes of the Trinidad patient:

CASE V.—*Mixed leprosy; Tuberculation of larynx; Tracheotomy; Death four months later from phthisis.*

Reginald Dewitz, white, aged 34, of German and English parentage, was admitted to the Trinidad Leper Asylum on Dec. 3, 1886, with mixed leprosy of eleven years' duration.

He complained of sore throat when admitted, but there was no dyspnoea till about two years later. From this time the difficulty in breathing gradually increased.

March 4, 1890. Breathing was becoming very difficult. The face was blue and the capillaries were injected. The hands were also blue.

March 26. He had a severe attack of dyspnoea.

March 30. A caseous gland was incised in the neck.

April 6. The asphyxia was getting worse every day, the patient becoming more and more blue.

April 16. Tracheotomy was performed to-day. At the patient's request no chloroform was given. He bore the operation very well. There was immediate relief and the face became less blue.

April 17. The breathing was quiet and the patient said he experienced great relief. The inner tube was taken out and cleaned, and much tenacious mucus was found.

April 18. The tube was almost blocked with thick mucus.

April 19. There was a good color in the face. Less discharge in the tube.

April 25. As he complained of scratching in the throat, the silver tube was replaced by a vulcanite one.

April 29. When he stopped the opening of the tube with his finger he found he could talk better than before the operation.

May 9. He had a slight cold, but was walking about freely out of doors. The damp steamy weather seemed to favor the case.

May 29. An abscess on the left side of the neck was incised. Glairy pus escaped.

June 25. The glands on the right side of the neck were enlarging rapidly.

July 11. These glands had suppurated and thick glairy pus escaped on incision.

From this time he lost flesh and gradually sank. He died on August 6.

The necropsy next day showed great wasting of the body, and suppurating glands in the neck. The ulcers on the hands, legs, and feet were becoming gangrenous. The median nerves were much thickened above the wrists.

The epiglottis, arytaeno-epiglottic folds and vocal cords were thickened and ulcerated, also the mucous membrane of the larynx below the cords. There was no ulceration of the trachea below the tracheotomy opening.

The pleuræ were adherent and both lungs were full of grey miliary tubercles. These were beginning to caseate and break down at the right apex. The lungs were quite solid in places from agglomeration of tubercles.

The liver was shrunken, tough and cirrhotic. The spleen weighed 21.02 and was hypertrophied. The kidneys weighed 14.02 and were lardaceous. There were a few ounces of straw-colored fluid in the abdomen. Numerous leprosy bacilli were found in the spleen, liver, kidney and femoral gland.

In this case, despite the fact that nearly every tissue and viscus in the body was diseased, there is little doubt that life was prolonged for nearly four months by tracheotomy.

Circumcision has been done sixteen times; ten times in tuberculated, three times in anæsthetic, and three times in mixed lepers. As will be inferred from these figures, the operation was usually done for phimosis, due to tuberculation of the prepuce. The incisions though close to or through tuberculated tissue healed rapidly.

*Intestinal Operations.*—Operations on the intestine were only two in number: herniotomy and linear cauterization of a prolapsed rectum. The former operation was done for strangulated inguinal hernia in an anæsthetic leper of thirty-two years' standing, the oldest case in the asylum. A firm cicatrix formed in twenty-two days. This is so striking an instance of the rapid healing which takes place in lepers that a few notes of the case may be of interest.

CASE VI.—*Anæsthetic Leprosy; Strangulated Inguinal Hernia; Herniotomy; Firm Cicatrix in Twenty-Two Days; Death Fourteen Months Later from Chronic Parenchymatous Nephritis.*

Charles Samuel, white Creole, aged 20, was admitted to the Trinidad Leper Asylum on August 10, 1859, with anæsthetic leprosy of six years' duration.

Oct. 19, 1885, he complained of great pain in the right side of the abdomen. He had for a long while suffered from inguinal hernia and had worn a truss. To-day, however, the finger could be passed well within the external ring. There was no dullness on percussion.

Oct. 25. The hernia came down at six P. M. after a fit of coughing. When examined at 8:30 P. M. taxis failed to reduce it. He was given chloroform, but the hernia was still irreducible. The swelling was then incised and the neck of the sac divided, but the hernia still would not go back. The sac was then punctured and a little clear fluid escaped. The neck of the sac was now incised from within and the hernia returned. A drainage tube was put in and two silk sutures. He was ordered tinct. opii, ℞xv., quartes horis.

Oct. 26. Temp. 96.5°; pulse 76, good; vomited everything and complained of pain in region of umbilicus. As the pain and vomiting continued, the sutures were removed in the afternoon and the inguinal canal explored digitally. No bowel could be felt. A little flatus had passed but no fæces.

Oct. 27. Temp. 98°; pulse 84. The pain and vomiting continued and the face was pinched. Very little urine had passed and no fæces.

Oct. 28. Temp. 92.2°. Flatus passed this morning but no fæces. Vomiting had ceased and pain had almost gone. The

wound had nearly healed, and the drainage tube had come out, the laudanum to be repeated three times a day.

Oct. 30. The bowels were freely moved this morning. The tongue was rather furred. Asked for more food. Half the incision had healed by primary union, the other half was granulating well. The abdomen was less tense.

Nov. 2. There was some hardness and pain on pressure in the inguinal region; there was free discharge from the incision; tongue clean; bowels open once or twice a day. Allowed fish.

Nov. 6. A very small granulating surface was left. There was still much thickness and hardness in the inguinal region, in great part due to enlarged glands. Bowels regular; appetite good. Allowed fowl.

Nov. 16. Incision had completely healed.

Nov. 20. Wearing a new truss. After this the hernia did not again come down.

Nov. 29, 1886. Œdema of legs and of penis and scrotum; urine sp. gr. 1006, dense precipitate with nitric acid.

From this time he gradually sank.

He died on Jan. 30, 1887. The necropsy next day showed much wasting of the body. The ulnar and median nerves also appeared wasted. The spleen weighed 17.02; its capsule was thickened and studded with yellow and white masses in places. The right kidney weighed 3.02; the left 6.02. They were deeply scarred. The capsules were adherent to the cortices, the latter were quite gone in places. In other parts there was evident tubal change.

On examining the tissues at the site of the herniotomy, only a faint external cicatrix was found. Internally there was no evidence of former hernia.

From the state of the kidneys after death it is pretty clear that they must have been diseased at the time of the operation. Nevertheless, in spite of the mixed kidney disease, a chronic parenchymatous nephritis, and of the leprosy of 32 years' standing, the patient made a perfect recovery and was able to wear a truss in a little over three weeks.

Linear cauterization with a black hot wire, as recommended by Harrison Cripps, was performed in a prolapsed ulcerated rectum occurring in an old standing case of anæsthetic leprosy. The

case has been published.\* The operation gave relief, but the patient died at last of dysentery and abscess of the liver.

*Ophthalmic Operations.*—Cataract is common in lepers, and extraction was performed five times. In one case†, a demented and very anæsthetic leper, the result was most surprising. The patient was so devoid of sensation that the operation was done without any anæsthetic. In spite of this the wound healed readily, and he was able to count fingers at the distance of ten feet. A similar operation on the other side was unsuccessful. The patient had an unfortunate habit of tearing off bandages, a result of his disordered state of mind.

Iridectomy has been performed from time to time in cases of tubercle of the cornea, in order by means of an artificial pupil to avert total blindness. This measure is only very temporary, for the tuberculated mass gradually advances across the cornea, and blindness is only a question of time.

Pterygium is very common in Trinidad, as in other hot places, and many cases occur at the Leper Asylum. Operative interference has only been partially successful.

Tattooing of the eye was done for cosmetic effect in one patient who was a little vainer than the others.

*Miscellaneous Operations.*—These speak for themselves. It is interesting to note that the skin grafting, as already mentioned, was done from a leper, and that nevertheless the grafts took well.

Paracentesis is occasionally necessary for the dropsy which accompanies the renal disease so common in lepers. I have found that 25 per cent. of the kidneys examined in lepers after death are diseased.

The above short notes and tables, imperfect though they are, will, I think, show that operative interference in lepers is capable of affording much relief to the sufferings of this unfortunate class of patients, and the argument is still more forcibly borne out by the eagerness with which the inmates of the asylum in Trinidad beg for surgical aid, when the occasion for it arises.

\* *Lancet*, Nov. 12, 1887, p. 958.

† *Lancet*, Sept. 25, 1886, p. 581.

REMINISCENCES OF THE SERVICES OF MEDICAL OFFICERS OF THE  
CONFEDERATE ARMY AND DEPARTMENT OF TENNESSEE. By S.  
H. STOUT, A. M., M. D., LL. D. (Nash.), Cisco, Texas.

I. PREFATORY.

By invitation of the editors of the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, these "Reminiscences" have been prepared. Ever since the close of the late war of the States it has been the earnest desire of the author to give publicity to them in some manner and through any appropriate medium, either in the form of bound volumes, or through some journal or magazine, as opportunity offered.

This desire could not heretofore, even in part, be gratified, because, having been impoverished by the disastrous defeat of the Confederate States, the author had not the money to pay for the use of printer's ink. It has therefore been necessary that some party or parties having it at command should tender to him its use, as have the editors of this JOURNAL.

Neither a wish to become an author, and thus to attract attention to himself, nor to earn money by publications, have contributed to the engendering of this desire.

Having had the honor to serve as a regimental surgeon, as a surgeon in charge of individual hospitals and of hospital posts, and as medical director of the general hospitals of the Confederate army and Department of Tennessee, the writer had opportunities for observation of surgical and medical practice, in field and hospital, that have fallen to the lot of few military surgeons in any war.

In May, 1861, he entered upon duty at Camp Cheatham, as surgeon of Col. (afterwards Major General and Governor) John C. Brown's 3d Tenn. Regiment, and thence accompanied the regiment to Camp Trousdale.

His first commission emanated from Governor Isham G. Harris, of Tennessee. It was that of surgeon in the Provisional Army of Tennessee.

Tennessee did NOT SECEDE from the Union. When President Lincoln, after the fall of Ft. Sumpter, called upon her governor for 75,000 troops, the conditional Union men, throughout the middle and western sections of the State, who denied the right of peaceable secession, agreed to the declaration of a revolution,

with the view of forming an alliance with the Confederate States. After an overwhelming majority of the people voted, in the mid-summer of 1861, for "separation" (mark you, not "secession"), an alliance was formed with the Government, of which Jefferson Davis was President. Tennessee in this way became one of the Confederate States, and her provisional army was turned over to the Richmond Government.

This transfer made it necessary that the officers of the provisional army of Tennessee be commissioned anew by the Government of the Confederate States. The commissions then issued to them post-dated those of many who, during the existence of the provisional army of Tennessee, had been commissioned by the Confederate States, although the latter had not been in actual service as long as the former.

This fact, in a very few instances, produced a conflict of claims to rank by seniority of commission. In all of the writer's experience, and within his knowledge, no more than three medical officers in the hospitals of the Department of Tennessee declined to obey orders to report for duty to others whom they ranked by date of commission.

The surgeons and assistant surgeons who entered the Confederate service did so to do all the good they could. Few entered the service to obtain rank or emoluments.

Brown's 3d Tennessee Regiment went with his brigade to Camp Trousdale. It was transferred thence early in September, 1861, to Bowling Green, Ky., and there reported to Brig. Gen'l (afterward Maj. Gen'l) Simon Bolivar Buckner.

Not long after the occupation of Bowling Green, General Albert Sidney Johnston arrived and took charge of all the troops between the Alleghany Mountains and the Rio Grande, as commander in chief of what was then designated as the Army of the West.

General Leonidas Polk was stationed with an army at Columbus and Belmont to guard the Mississippi river. Fort Henry, on the Tennessee, and Fort Donaldson, on the Cumberland, were garrisoned. General W. S. Hardee was in immediate command of an army at Bowling Green. General Crittenden (the Confederate of that name), with General F. K. Zollicoffer as his subordinate, was stationed with an army at Mills Springs to guard there the passage of the Cumberland river. The extreme right of A. S. Johnston's command was stationed at Cumberland Gap.

The armies occupying the above line aggregated about 50,000 officers and men. In less than five months before they had been called from their homes. Most of the field and staff officers had to be instructed as to their duties.

The writer entered the service better prepared for his peculiar duties than many who entered it for the first time. He had studied military surgery and the regulations of the United States Army and Navy prior to 1848, early in which year he was commissioned assistant surgeon in the Navy by President Polk.\*

Understanding the regulations of the medical department of the army, he did not, from the beginning of his service, find difficulties in organizing his regimental hospital, disciplining the sick and wounded, making requisitions for supplies and quarters, or in the assertion of his true relationships to the medical director and the surgeon general, with officers in command of troops, with commissaries, quarter-masters and purveyors, which often wearied and worried many most worthy surgeons, just from civil life, whose ignorance of the army regulations was profound, because they had never seen a copy thereof, nor had their attention called to them before they found themselves amid the sick, wounded and dying, powerless to provide for their comfort and ease to the extent it was their desire to do. Their distress was sincere and painful. They entered the service to take care of their neighbors and their neighbors' sons, rank and pay not being considered.

But they were apt pupils, and in time order followed confusion; and at the time of the surrender, the organization of the medical staff of the Army and Department of Tennessee was complete and as efficient for the working of good results as circumstances would permit.

When General A. S. Johnston took command of the Army of the West and announced Dr. David W. Yandell as medical director, the writer had the only regimental hospital at Bowling Green organized and administered in accordance with the army regulations. That hospital was used as an object lesson for the instruction of surgeons unacquainted with the regulations.

From the regimental service the writer was transferred to the general hospital service at Nashville, in October, 1861. He remained there until after the fall of Fort Donaldson in Feb., 1862,

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\* Note.—At the time the commission was issued, the Mexican War was about closing and the recipient of it declined entering the Naval service.

and witnessed the stampede from Nashville on that memorable Sunday.

On the Thursday following, having turned over his sick and wounded as ordered, he took a private conveyance to his home near Pulaski, Tennessee, having obtained a leave of absence for thirty days.

After the expiration of his leave he was ordered to Chattanooga to take charge of the hospitals there. When General Bragg, then in command of the army of Tennessee, passed through that place *en route* to Kentucky, by order from his headquarters, the writer was designated superintendent of all the hospitals in his command, reports being required to be made to the medical director of the army, Surgeon A. J. Foard, who superseded Surgeon D. W. Yandell, when General Bragg assumed command of the army, Surgeon Yandell having been assigned as medical director of Hardee's Corps.

In February, 1863, the War Department created medical directorships of hospitals. Thus the direction of them was taken out of the hands of the medical directors of armies.

The writer was, by order of the War Department, made Medical Director of Hospitals of the Army and Department of Tennessee, being required to report direct to the Surgeon General, and not through the medical director of the army in the field. This position he held until the termination of the war.

This prefatory history is deemed necessary to indicate to readers the opportunities of the writer of the narratives and reports to follow it, for observation of facts, and to impress their authenticity.

From the time he entered the service it was his custom to preserve duplicates of his reports, and copies of all orders and circulars received by him; also, all the original reports from subordinate officers (from which were made out his consolidated reports), his own circulars and all his official and non-official correspondence. These he had securely packed in boxes, and fortunately has them now in possession. He was profoundly impressed, from its incipency, with the probable magnitude of the war, and the importance of preserving every document of an official character that might prove to be of value to future historians and to science.

Inasmuch as the records of the Surgeon General's office were burned at Richmond in April, 1865, these official papers are of

inestimable value to science and to history. They have been held as a sacred trust, in justice to the hard-worked, faithful, self-denying, skillful officers who served so cheerfully and enthusiastically under the writer's direction, for whom, after the lapse of twenty-eight years, his admiration and affectionate regard have undergone no abatement.

The organization of the hospitals of the Army and Department of Tennessee was unique, and in many of its features new departures.

No one, save the writer and Dr. A. J. Foard, Medical Director of the Army of Tennessee, if alive, could do justice to those who served in it.

Frequent applications having been made by parties desiring to have access to official papers in his possession, the writer corresponded with Dr. Foard prior to his death in regard to the propriety of granting these requests. His reply was: "No! You and I are the only persons who can do justice to those who served so faithfully and efficiently under us. You and I will jointly do the needed work."

The death of Dr. Foard was a disaster. He was a most skillful surgeon, a noble gentleman, a genius as an organizer, and an eminently just officer.

Whether the writer will be able unaided to perform the work proposed remains to be seen. Of this all may be assured: it is his desire to be truthful and just. In what follows, if the writer frequently uses the personal pronoun, the reader will please not attribute it to egotism, but to the convenience of rapid narration.

The writer in the conclusion of this preface desires to greet all those living who were associates with him in the troublous times between 1861 and 1865, and to ask for himself their good will and aid in the work of love he now proposes to begin to perform, and which he has contemplated doing for more than a quarter of a century.

#### THE PERSONEL OF THE MEDICAL STAFF OF THE CONFEDERATE ARMIES.

Some statements in these "Reminiscences" may seem incredible to many unacquainted with the personal "make up" of the medical fraternity in the South before the civil war. Hence the necessity of some preliminary remarks upon the *personel* of the medical staff of the Confederate armies.

Ethnologists and sociologists know that soil, climate, and the product of the fields determine and direct the economics of peoples, and that their pursuits greatly influence their modes of thought, originate their peculiar social customs, give to a certain extent tone to moral sentiment, and bias and direction to political convictions.

Before the era of labor-saving machinery inventions, so remarkable in the last half century, in the fertile agricultural regions, in the South Atlantic States, and the Valley of the Mississippi, each farm and plantation was a *quasi*-independent domain, on which was produced the food of the family, and manufactured almost all their wearing apparel.

Each family, knit together by ties of blood and marriage, was in many respects independent of co-operation with neighbors, to ensure the comforts of life. A log rolling, a house raising, or a corn-shucking, might demand co-operative labor, and the building and support of churches and schools require subscriptions of money or labor. The wealthy had little need of joint stock corporations to increase their accumulations, or as furnishing opportunities for safe investment of surplus money.

The purchase and improvement of real estate in the Northwest and South absorbed almost all the surplus of the agriculturists. They were home-seekers, home-builders, and home-lovers. The privileges of home and the happiness of its inmates were the proposed rewards for their deprivations, and their economical schemes. To sit undisturbed under his own "vine and fig tree," was the cherished desire of the pioneer father. He desired to own a broad domain, that each of his children might inherit a home.

The cavalier dreamed of the possession of a baronial manor, and many Virginians literally realized it.

The educated and high spirited Huguenot, true to the principles that caused his exile, never, under a change of skies, forgot the ties of family. He did not neglect to develop in his children a measure of that intellectuality that characterized his European ancestors. Hence his descendants became remarkable for their independence of thought. Having been bred in them, their social elegance and refinement were perpetuated in each succeeding generation.

The Scotch-Irish were a large element among the pioneers of the

South, of the Northwest, of the Middle States, of the Atlantic slope.

The Scotch-Irishman was an ardent lover of liberty. His religion made him a home-builder and a home-lover.

Before the acquisition of French Louisiana and Spanish Florida, the Cavaliers, the Huguenots and the Scotch-Irish dominated the policy and shaped the several features of the Southern States, and of the Northwest.

In the Southern States agriculture was the most profitable pursuit for the poor man, and it always enabled frugal parents to keep their children at home until they arrived at their majority. Investments in cotton, tobacco and sugar producing property, were the best a prudent man of means could make.

The rural homes of people of refinement and intelligence, making such investments, were unsurpassed in quiet, rational domestic enjoyments in any other region of the western continent.

If the parents among the wealthy, because of their poverty in early life, were uneducated, they almost without exception gave their sons and daughters the best educational opportunities.

If the isolation of families sometimes bred "greenness" and eccentricity in some of their members, that "greenness" and that "eccentricity" were forms of expression of independence of thought, by which those possessed of common sense and generally well-balanced mental faculties often wrought remarkable, practical results through novel methods.

In no trait of character were all classes of people in the former slave-holding States thoroughly homogeneous, save in the desire to be let alone in their homes.

The non-slaveholder was as independent in his humble cabin, as was the owner of an hundred slaves in his "great house." Between these there was a mutual respect. "The poor white-trash," so contemned by the negroes, were the few dishonorable and dishonest people of whose crimes and dishonesty he was cognizant, but could not expose in a court of justice, because he was not legally competent as a witness against a member of the white race.

Among such a people, accustomed to think for themselves, the medical charlatan found little opportunity to victimize his dupes. The humanity of the slave-holder was stimulated by self-interest to employ none other than accredited and honorable physicians.

The non-slaveholder in his neighborhood, if disposed to patronize quackery, was compelled to resort to patent medicines, or become a victim of the charlatan resident in a city or town.

The rural practitioners among the slave-holders, to succeed, had to be educated physicians. In the selection of a profession the educated youth of the planting regions often chose that of medicine and surgery, not only in consideration of its honorable mission, but also for the protection of his own relatives and neighbors, and his own and their prosperity.

Many such youths were primarily able to avail themselves of the very best medical instruction; and, if they were not, if possessed of merit, it was not difficult for them to borrow money from some wealthy neighbor to pay for their medical education.

Nowhere, perhaps, in America were ever found as many scholarly, well educated medical men, settled in rural localities, as there were in the slave-holding regions of the South, prior to the beginning of the late civil war.

When the writer last attended lectures in Philadelphia (in 1847-8), there were about one thousand students in the medical departments of the University of Pennsylvania and Jefferson College. Of these nearly half were from the slave-holding section. It was rare to find among the latter an individual who was not a Bachelor of Arts, or fairly educated in the classics, mathematics, natural philosophy and chemistry, prior to attending upon the study of medicine.

The average medical man in the well-to-do agricultural regions of the South and Northwest was, in general, well educated in the arts, and well grounded in the principles of medical science. Combining agriculture and the practice of his profession, he was generally prosperous. Practicing for his neighbors of all classes, both rich and poor, he was a friend to all, and in general an adviser, in regard to matters social, educational and political. He had an office to which his patrons often resorted to discuss the topics of the times. He had a library of miscellaneous books, as well as medical. He was a subscriber to newspapers and literary magazines as well as to medical journals, and those, too, that were the very best of their kind.

In his solitary rides through the forests and over the broad prairies, he had ample time for reflection and the observation of

the majestic trees, the grand floral displays that greeted his vision, and to study the thousands of medicinal plants that grew wild in the region of his practice.

The distance of his practice from his home precluded the possibility of frequent visits to their bedsides.

Therefore, the scientifically educated practitioner in the rural sections, took great care in making his diagnosis, and studied pathology with zealous intelligence. His therapy, so far as he had to depend upon the *materia medica*, he learned to simplify. Because he had to carry medicines in saddlebags, he learned to do a successful practice with a few of the most reliable medicines on the official list, in the proper dispensing of which he acquired accuracy as to the doses needed in each case. With the numerous domestic remedies in use among the people, he became familiar, and often prescribed them, and that, too, with satisfactory results.

When the federal government declared medicines and surgical instruments and appliances contraband of war, it was a blessing to the sick and wounded Confederate soldiers, that so many of the medical staff in field and hospital had been rural practitioners, and were familiar with the medicinal flora of their section.

The educated rural practitioners practiced all branches of their profession. They, for the most part, did their own surgery, and did it satisfactorily, too, with the simplest of appliances and apparatus, and as few instruments as was compatible with the performance of good work.

When there was a call to arms every able-bodied, educated medical man in the South rushed to the army, generally indifferent as to rank in the staff, ready and willing to serve where and when their services were needed at the bedside of the sick or wounded soldiers.

Their soldier patients in all ranks they treated as they would have done in private life, as far as circumstances would permit.

Few of the soldiers of the Confederate armies were treated tyrannically by members of the medical staff. Every instance of abuse of power by any of them was promptly rebuked.

Suspected malingerers were so carefully studied that very few were forced to duty when they were so disabled as to be unfit for it. The mutual confidence between soldier and surgeon was such that, compared with the experience of other armies, there were

perhaps fewer malingerers in the Confederate than in any other armies in history, that served for a series of years in the field.

A distinguished characteristic of the educated general practitioner of the rural sections of the South was self-reliance, which the circumstances of his calling made it necessary he should exercise. That self-reliance engendered originality of thought, which stimulated him to study facts. This often led him to join issue with the writers of text books and the teachings of medical professors. When these were teaching that it was improper to use quinine in the pyrexia, Drs. Fearn and Erskine began using it in the pyrexia of paroxysmal fevers, and that too in large doses, as a defervescent. Then, and not till then, did the profession begin to truly understand the physiological action of the drug and to properly comprehend its therapeutical value.

These gentlemen, at the time they made a revolution in the practice on malarial fevers, were rural general practitioners, residing at Huntsville, Alabama.

Gynæcological surgery began to attract the attention of the medical world through the originality of Drs. J. Marion Sims and N. Bozeman, general practitioners in the rural district tributary to Montgomery, Alabama.

Crawford W. Long was a rural practitioner in North Georgia, when he performed the first surgical operation while the patient was anæsthetized with sulphuric ether.

McDowell, a rural practitioner in Kentucky, is acknowledged throughout the world to be the father of ovariectomy.

Benjamin W. Dudley, the great lithotomist, resident of Lexington, Kentucky, was a rural practitioner, and the founder of the medical department of the Transylvania University, which, by its merits, prior to the era of railroad travel, attracted more well-educated students than any school of the kind in America, excepting alone that of the old University of Pennsylvania.

Nearly all the professional chairs in the medical schools of the South and Northwest were filled by men who began their professional career and acquired reputation as rural practitioners.

Nearly every Southern or Northwestern man, that had been called to a chair in any of the medical schools of Philadelphia or New York, had been a rural general practitioner.

Before the railroad era in the Northwest, and before the abolition of slavery in the South, the educated general practitioner

derived most of his income from patients resident in the country. Towns were then built for the convenience of people engaged in agriculture almost exclusively. Hence many medical practitioners who lived in towns and so-called cities of considerable pretensions, may be classed as rural practitioners.

Now, owing to the decadence of the fortunes of the strictly rural people of Illinois, it may be doubted whether it would be possible for either Hodgen or Linton, who so adorned the profession in St. Louis, to make such a start in life by the profits of a rural practice as to enable them to get a foothold in that wealthy city.

Since the abolition of slavery, in those regions of the South where the negroes form a very large moiety of the population, the practice of medicine offers little inducement for educated physicians to settle therein, and nearly all such who formerly lived there have abandoned the country to live in the towns, or have ceased to practice and engaged in other pursuits, or are deceased.

The signal services so honorable to our humane profession, which were performed by the members of the medical staff of the Confederate armies, could not have achieved, under such great difficulties as they encountered, those results which it is the aim of these "Reminiscences" to record in part.

No armies ever engaged in a conflict of arms, fighting numerous battles warmly contested during any period of years, ever went into the field with as many skilled and well-educated medical officers as did those of the conquered Confederacy. No large body of soldiers, sick and wounded, were ever so faithfully and lovingly administered to by as numerous a body of skilled, educated medical men.

Conditions have so changed that never again will so many such medical men be found in any section of the country, ready and willing, uncomplainingly, to undergo hardships, to bravely risk the loss of fortune, and to labor with so much industry and fortitude amid disadvantages and difficulties, of which the outside world has and can have little conception.

If the names and fame of such military leaders as Lee, Stonewall Jackson, Albert Sidney Johnston, Jos. E. Johnston, Bragg, Longstreet, Forest, and an host of others, champions of the "Lost Cause," will, through ages to come, illustrate American manhood and heroism, the members of the noble profession of medicine everywhere, when the history of the services of the medical

officers of the Confederate armies and navy is understandingly published to the world, will honor their memory and accord to them, with military surgeons of any period, an honorably earned peerage.

[In the next paper will be begun a narrative of the organization of the Medical Department of the Confederate Army and Department of Tennessee. At some future time, and perhaps in a separate volume, the writer proposes to publish a "Roster" of Confederate medical officers, authenticated by official papers and reports now in his possession.]

S. H. S.

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ABORTION IN AN HOUR. By CHAS. H. HARRIS, M. D., Cedar-town, Ga.

In the *Medical Record* of Sept. 17, 1892, there appeared an article under the above caption, in which was the statement "that any case of abortion in which an operation was admissible may be brought to a finish in an hour." It has been received with such marked favor by the profession, showing a want of something better in these cases, that it may not be amiss to fill out briefly the skeleton of the operation roughly sketched in that article. The operation is based on the difference in the structures of the uterus and its contents. If you bray a piece of placenta in a porcelain mortar, a few strokes of the pestle and a little grinding will suffice to reduce it to a semifluid mass which may be forced through the nozzle of a syringe. The uterus, on the other hand, is a tough, strong organ, its endometrium lubricated with a secretion, and its white fibrous tissue stout enough to protect it against injury. It is, therefore, practicable to detach and demolish the ovum without using force enough to damage the uterus, and the broken fragments may be extracted through a moderately dilated cervix.

#### OPERATION.

Sims' position and speculum. Chloroform (not often necessary) as in labor. Cervix fixed with vulcella and brought forward. With Sims' dilator or other suitable instrument ascertain the size and dilating qualities of the cervix. Dilate to the point of divulsion. Now manipulate the rubber loop (A) of snare No. 1 to suit the size of the canal—as large as will pass with moderate pressure—and use it as a probe to define the boundaries of

the placenta. Now use the same instrument while yet in the uterus to detach the placenta from its anchorage. Do this rapidly and thoroughly, continuing the curetting awhile after you think it well done. The success of the operation depends largely on the thoroughness of the curetting, for without detachment snaring will be a failure, and the more thorough and rapid the curetting the less will be the hemorrhage. Scraping a mortar with a thin spatula illustrates the way the curette should be handled. Now use the instrument to demolish the ovum. If not already small contract the loop while yet in utero and churn the uterus in every direction, using enough force to plough through the ovum, but not enough to hurt the uterus. The soft rubber

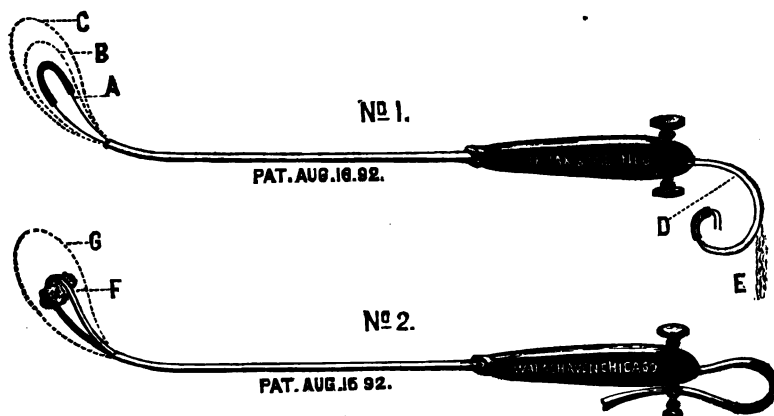


FIG. 39. Showing curette snare with round wire loop with soft rubber covering A, and stream of liquor amnii E.

FIG. 40. Showing curette snare with flat wire loop closing on fragment of ovum F to clamp it.

covering (No. 1, A) to the wire curette will protect the mucosa unless rash and unnecessary force be used. Part of the liquor amnii will pass through the tunnel of the snare and trickle down in a small stream on the wires (No. 1, E). Detached and reduced in size by the churning, the freed mass becomes a compress in the uterus, and the snaring now begins. With the loop already in the uterus, sweep it under the loose mass and enlarge the loop as much as the uterus will carry. Now give the snare a twisting and bilateral movement to make the loop encircle the ovum. By pressing the loop against the superior wall of the uterus it

broadens the loop and the enclosed mass sinks into it. Now move the handle of the snare upon the wires (No. 2, F) as far as you can and tighten the thumb screw. The mass in utero is now in the embrace of a tourniquet from which there is no escape except by division. Pull gently and steadily with forceps movement. The ovum now becomes a tampon and tent, provoking through reflex agencies contractions of the uterus. Should the wire cut through repeat the snaring till the mass is chopped into fragments of easy extraction.

Loops of snares may be manipulated from the size of an orange to a hair pin. Snare No. 2 with flat watch spring will catch small fragments that might elude the round wire loop. It is intended rather as a scrape to remove residual placenta and extract detritus of the ovum. Its smallest loop is now passed and enlarged as much as the uterus will carry. Carefully scrape the entire wall of uterus and pass the loop to and fro into and out of the uterus several times until the fragments cease to appear. The toilet of the organ is now completed by swabbing the wall of the uterus with a styptic antiseptic (R. Tr. Iodine,  $\mathfrak{z}\text{ij}$ .; Acid Carbolic,  $\mathfrak{z}\text{j}$ . Mix well and add when used, hot water,  $\mathfrak{z}\text{iv}$ .) Irrigate the vagina with warm water.

This is the operation in the main. Exceptional cases will require changes to suit them. Some will need only snaring; others will bear only curetting. It has occurred to nearly every doctor to encounter cases of abortion with the ovum loose and movable in the uterus. Such a case would relieve itself "in due time," but the woman would like you better and pay you more if you would pass a snare with or without a speculum and relieve her at once. In very rare cases it is advisable to practice thorough curetting and defer snaring until the next day: such cases as are attended with danger from shock or tetanus with rigid, narrow os and general asthenia. Thorough curetting may be done even in these cases with the rubber loop almost painlessly. The women describe the sensation as not positive pain, but "as if something were tearing loose." After thorough curetting and rupturing the membranes, in all probability in a few hours spontaneous expulsion will take place. If it does not, under anodynes and rest in twenty-four hours the parts will be in a favorable condition for snaring. These are exceptional cases and are left to the judgment of the practitioner. Ordinarily it is practicable

and best to do both curetting and snaring at one sitting and in less than an hour.

I have done this \*operation alone in the dorsal position with Nott's speculum\* in a half hour, and my patient did not keep her bed. "Keep your bed, madam," is the regulation order given these cases. Never was a greater mistake. The women know better, and except for cause, such as hæmorrhage, pelvic tenderness or fever, they go about their avocations while aborting. Moderate exercise indoors favors drainage and keeps up her strength, which wanes under confinement. Facts of daily occurrence in every climate prove abortion *per se* to be more troublesome than dangerous. When associated with dysentery, enteritis, the fevers, diabetes, Bright's disease and cardiac trouble, it becomes a matter of grave import. Who has not lost a case with one of these complications? When this operation is known and established the doctor will not wait for the sure approach of dangerous asthenia as he now does before he acts, but he will take time by the forelock, and emptying the uterus early he will eliminate this factor from his case.

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**Missouri State Medical Association.**—In calling your attention to the Annual Meeting of the Medical Association of the State of Missouri, which will be held at Sedalia, May 16, 17 and 18, 1893, the Committee of Arrangements desires to say that the meeting will be the largest and best in the history of the Association. Papers to be read, must be in the hands of the Committee on Scientific Communications, by May 1st.

Dr. H. C. Dalton is chairman of that committee and his address is 3536 Easton Avenue, St. Louis, Mo. E. F. Yancey, M. D., Sedalia, Mo., Chairman Committee Arrangement.

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DR. REYNOLD W. WILCOX, of New York, with whose name the readers of the JOURNAL are familiar, as a frequent correspondent, has removed his office to No. 706 Madison Avê., between 62d and 63d streets.

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\*To those acquainted with the use of Jones' suspension speculum in office practice, the dorsal position is best. This most excellent though ponderous instrument allows the cervix to sink within easy reach where it may be held and steadied with the spread blades of the dilator, between which he may do this work, and inject if he wish the styptic antiseptic. It promptly controls the hæmorrhage if he has done the previous work well.

## Clinical Reports.

BACKWARD DISLOCATION AND FRACTURE OF THE LOWER JAW. By  
C. C. LACKEY, M. D., Sweet Springs, Mo.

Dec. 1, 1892, I was called to see Jno. Lambert, a white man, aged 20 years. He was muscular, and weighed about 180 pounds. I found him suffering intensely from injury received by a heavy stick of timber rebounding (he had been chopping down trees), which struck him on the chin. The lick was directed backward and upward. The lower jaw was driven back three-quarters of an inch, breaking into the mastoid processes, fracturing the condyles, and ruptured the drum membranes. Considerable hæmorrhage ensued from the ears, nose, mouth, several teeth badly broken, and patient was unconscious for about two hours, and terribly shocked. I went prepared to amputate a leg or an arm, but was not supplied with instruments suitable for reducing *backward* dislocation of the lower jaw, which seemed to be grown fast to its new attachment. My father, Dr. T. S. Lackey, administered chloroform, and after making quite a show of instruments my eyes fell upon a *curling iron* on a shelf near by. The thought that such a machine might be used for something besides spoiling beauty struck me, so I picked it up, wrapped it with absorbent cotton, and introduced it under the tongue, firmly against the right lower molars, and using the upper teeth as a fulcrum I prised the right side back to its place. I then tried the left with the same instrument, but failed. My second attempt was to wrap a catgut (B) guitar string around the molars on left side; with a good hand hold made traction sufficient to break the string, but failed to move the jaw. I then fastened a cow horn forcep around the last molars, and proceeded with a determination to reduce the dislocation or *break* something, as in my judgment something had to be done at once. After prolonged traction failed me, I shook, twisted and jerked, until the jaw was in position again. My dressing was the four-tail bandage. I directed a comp. colocynth pill at bed time, liquid diet, one in 4000 bi-chlo. solution, and morphia one-quarter grain, if necessary, to produce sleep.

Strange to say, that patient made a rapid recovery. Hearing very little impaired, motion nearly normal now, and will be perfect, and the much dreaded mastoid abscess has not formed.

**A CASE OF SYPHILITIC RUPIA—REMARKABLE AND RAPID RESULT OF TREATMENT.** By JOSEPH L. BAUER, M. D., Consulting Surgeon to the St. Louis City and Female Hospitals, late Professor of Genito-Urinary Surgery, etc., etc.

In presenting what I consider to be an interesting clinical report, I cannot detail something novel with reference to the pathology or symptomatology of this rare, and one of the latest manifestations of the secondary period, so-called, of syphilitic infection; but I do contend that in reaching an excellent therapeutic result by the use of a proprietary medicine, I should do justice to the manufacturer by giving it publicity, believing that a similar result would possibly not have occurred had I relied solely upon the conventional remedies applicable to such cases.

Like the pustular syphilide generally, the presence of rupia "casts a mournful shadow upon the condition of the patient," and justifies the fear that purulent metamorphosis of syphilitic foci in other localities may be apprehended, besides being an index of the vitiated condition of the individual.

The case in question concerns a young German, aged 27, a bar-keeper, who presented the initial sclerosis in the usual locality three years ago.

After the usual period of incubation, the first manifestation of the disease was an unusually marked roseola, covering his entire body, but most pronounced on his face. In order to relieve him as rapidly as possible of the tell-tale evidences of this constitutional *materia peccans*, I prescribed one-eighth of a grain of bichloride of mercury every four hours, and directed the application of an ointment as follows :

R	Oleate of mercury 5% .....	3 ss.
	Lanoline .....	3 ss.
M.		

To be rubbed on his face night and morning, until every vestige of the irritation disappeared. As is customary after this treatment, two days sufficed for the prompt elimination of all external appearance of the disease.

I then checked the internal administration of the bichloride, and commenced the inunction treatment, continuing this, with two hot baths per week, for a period of three months; the administration of tincture of iodine was then begun, and continued

for two weeks, when the mercurial inunction was resumed. Excepting the appearance of a few mucous patches, nothing occurred for a year and a half to mar the constitutional condition of the patient.

The absence of induration of the palpable, lymphatic glands led me to believe that recovery had asserted itself.

I did not see the patient for a year and a half, when five weeks ago he presented himself at my office for further treatment. With the exception of marked anæmia, indurated post-pre-cervical and epi-trochlear lymphatic glands, two corporeal and two cephalic, rupial, oyster-shell crusts were the only manifestations of the infection that could be determined. The latter, indeed, were typical in character: the one situated on the upper, inner surface of the thigh; the second, on the arm corresponding to the insertion of the deltoid muscle. These were as large as a silver dollar. The ones on the scalp were much smaller, though not without sufficiently distinctive marks to differentiate them from ecthymatous ulcerations.

Experiences gained in the treatment of all the various cutaneous manifestations of syphilis have taught me, that in whatever stage of the disease the patient presents himself, a combination of internal treatment with the local application of an ointment containing the oleate or mercury has been fruitful of the very best results. The usual plan of treatment followed in cases of this kind would naturally be the internal administration of tonics, particularly those of the iodine group, or, if the anæmia were not too marked, to combine the treatment with large and progressive doses of iodide of potassium.

Having recently read a very strong recommendation, presented in a clinical lecture delivered by Prof. Germain Sée before the Academy of Medicine of Paris, that the halogen or lime salts possessed more intense and favorable therapeutic properties than the potash salts, and having in their favor the fact that they can be given with less disturbance to digestion, I was determined to give this recommendation a trial.

The iodio-bromide of calcium compound (The Tilden Company) contains the iodide of calcium, besides some vegetable properties which are tonic in their character, and I naturally accepted this preparation as the most available at the time. So that my treatment consisted of prescribing ten per cent. oleate

of mercury in lanoline, as an external application to the rupial sores, and the internal administration of the elix. iodo-bromide in teaspoonful doses four times a day, suggesting to the patient that at each dose upon each day he should increase the quantity fifteen drops. Mark my surprise, when within one week and a half the entire rupial elevations had disappeared, leaving the characteristic reddened base as a reminder of its previous existence.

I present this report to the profession with the full knowledge of my responsibility, and I feel satisfied that the excellent result achieved warrants a recommendation of the product used in this case.

CHRONIC SUPPURATION OF THE FRONTAL SINUS, WITH ILLUSTRATION OF SELF-RETAINING DRAINAGE CANULA. By A. E. PRINCE, M. D., Springfield, Ill.

The liberty of reporting the following case of Chronic Suppuration of the Frontal Sinus, discharging externally, is taken on the ground that the condition itself is rare, having been met with but three times in my experience. Little guide to treatment is found in the literature at my command, and it is hoped that the publication of the form of self-retaining drainage canula, to facilitate drainage and irrigation, may serve a useful purpose in the future.

Mr. W., Omaha, Neb., æt. 71, was struck on the head August 9th, 1892. During the afternoon of the same day a very small, dark streak was observable from the point of injury to the eye-brow. On the following day the streak was wider, and blood had settled around the lids. Swelling immediately followed and extended over the left side of the head, reaching up as far as the point of injury and down to the temple; there was no noticeable swelling below the eye. This continued with increasing pain until September 2d, when it was apparent that an accumulation was forming beneath the eye-brow, where it was opened. A quantity of blood serum escaped, but no pus. After this it immediately closed, and required opening a second time, on the 11th, when a quantity of pus was discharged with considerable bloody serum. On September 27th it was again lanced, and a considerable quantity of bloody pus was observed. After this the discharge was spontaneous until the last of October, when it closed. On No-

vember 4th it was again opened, and since that time has been opened at short intervals and injected with peroxide of hydrogen.

A glass drainage tube was introduced, and was worn with some success for about six weeks. Owing to the pendant position it frequently escaped, and on December 28th it was lost. Since that time there has been a strong tendency to close; every few hours pus would be retained with the effect of causing increasing discomfort, terminating in unbearable pain. Relief was only obtained by perforating the newly organized barrier and permitting the escape of the pus. This was repeated from five to ten times a day, necessitating the almost constant attention of his wife.

The case came into my hands February 6th, 1893. The opening in the skin midway between the outer and inner canthus communicated with the frontal sinus, through an opening three mm. in diameter, back of the superciliary ridge.

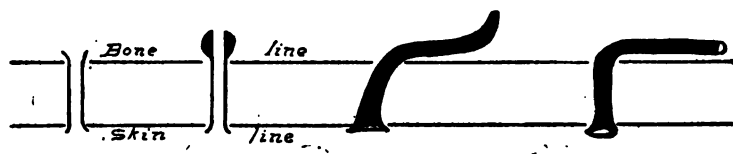


Fig. 41.

Fig. 42.

Fig. 43.

Fig. 44.

An anæsthetic was given, and the frontal sinus was curetted, with the discovery of considerable granulating material. A gauze drainage was introduced and removed on the second day; closure immediately took place, and he remained free from pain or the secretion of pus for a period of three days, during which time he was in high glee and considered himself well. At the expiration of this time, however, pus formed again, and relief was obtained by opening the cicatrix, permitting it to escape.

It was then determined to introduce a gold tube, to remain as a permanent drainage, or until the discharge should be eventually controlled. The opening in the skin was midway and underneath the brow. A probe could easily be passed into the sinus through a perforation in the brow about three mm. in diameter.

The first attempt was made with a tube having an expanded extremity (Fig. 41), which, it was hoped, would prevent its escape.

Owing to the nature of the cutaneous cicatrix, its introduction was ineffectual. This was remedied by supplying the tube with an olive-shaped extremity (Fig. 42), somewhat larger than the opening, by which it would, in consequence, be retained. It was forced into position, but escaped during the night.

A solid style, of the shape as shown in Fig. 43, which had succeeded in my first case, was then tried and failed.

A tube like that shown in Fig. 44 had been employed in my second case, and still does duty after six years, never having escaped once during that period. Attempts were made in this line, but the conformation of the sinus was such that the results were a repetition of the former failures.



Fig. 45.

At last the idea of introducing a retaining stem was reached and consummated in the tube shown in Fig. 45. A tapering spur was soldered to the cylindrical tube, and a stem was made having an expanded head, which after being passed through the tube would be forced by the lateral pressure to rest over the upper rim of the cylinder. The expansion in two directions, caused by the spur on the one hand and the head of the stem on the other, being larger than the opening in the bone, prevent the escape of the tube.

By direct traction, it was found easy to remove the stem for the purpose of irrigating the sinus, which was done three times a day with peroxide of hydrogen. Should a complete cure not follow, the tube may be worn indefinitely, with no especial inconvenience.

It is readily apparent, that with certain modifications this device may be adapted to any similar case.

In a conversation with a mechanical engineer regarding the means of securing drainage in such a case as the above, he suggested the use of a hollow tube, somewhat larger than the opening, the upper end of which was made to taper, and on which threads were cut by which it could be screwed into position. He suggested also a lateral slot to effect drainage at the lowest point.

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## The Earlier Editors of the St. Louis Medical and Surgical Journal.

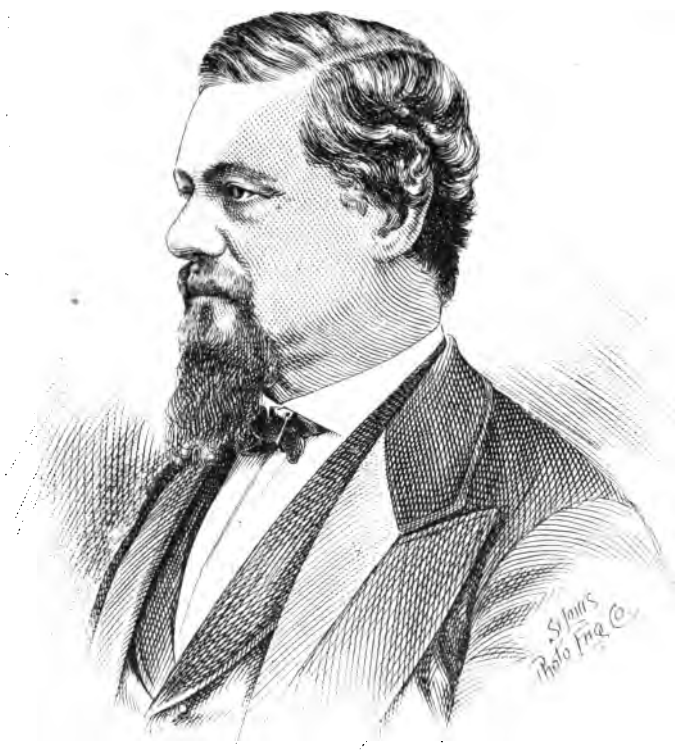
### IV.—VICTOR JOHN FOURGEAUD.\*

To relieve the wretched was his pride,  
And e'en his failings leaned to virtue's side.

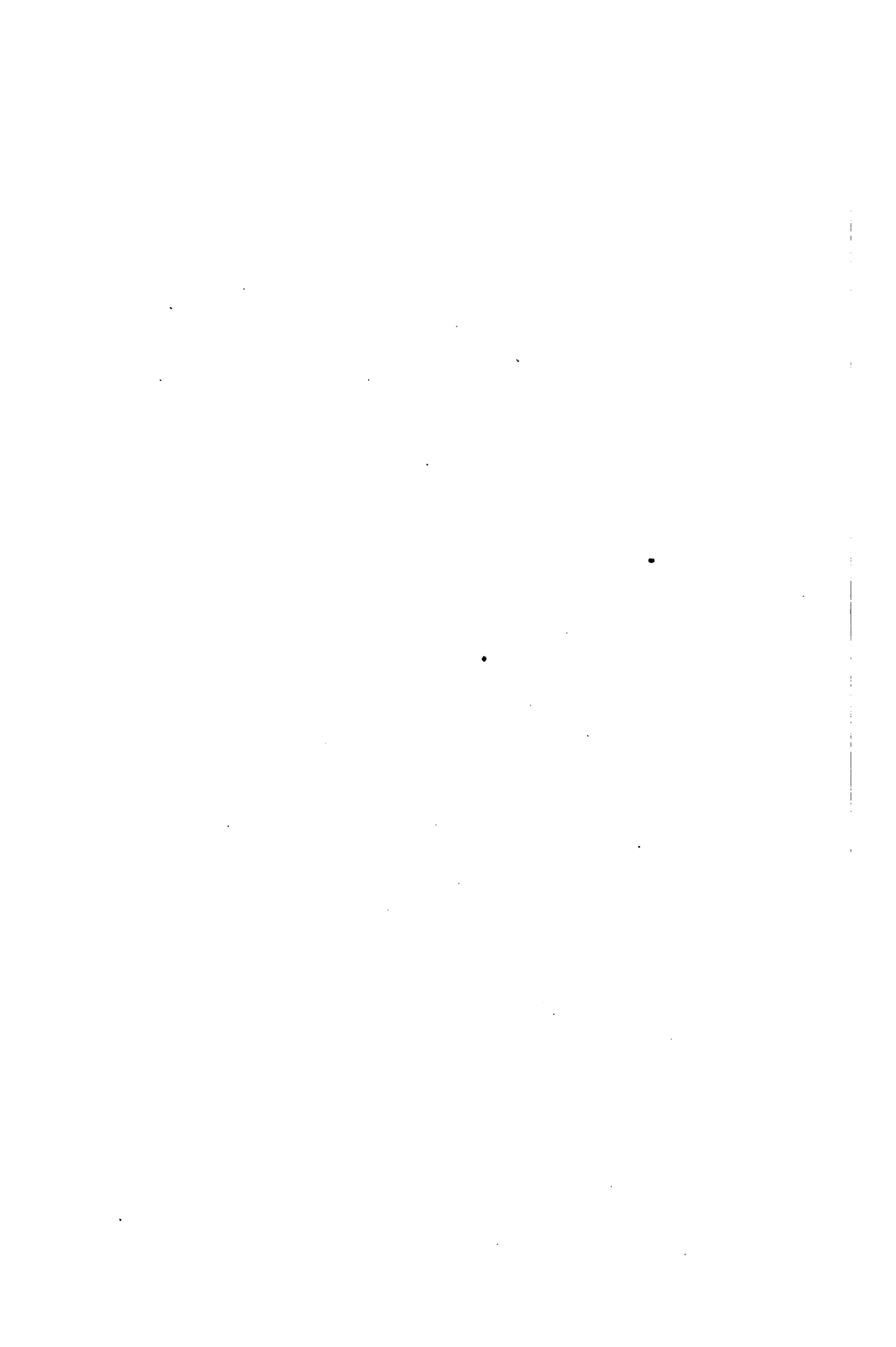
VICTOR JOHN FOURGEAUD was born in Charleston, S. C., of French ancestry, February 1, 1815. At the early age of ten years he was sent by his parents to France to be educated among their relatives. After passing through the preparatory schools he entered the College of Agen (Lot-et-Garonne, near Bordeaux), a branch of the Université de France, where he was graduated Bachelor of Arts in 1836. Returning at once to Charleston he there commenced the study of medicine. In 1838 he returned

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\* In a foot-note attached to the sketch of Dr. McPheeters in our February number, we spoke regretfully of Dr. Fourgeaud as the only member of the coterie of early editors of the JOURNAL whose history we could not trace beyond his career in St. Louis, adding that he had left this city in 1847 for the Pacific coast, and that with his departure from here all traces of him were lost. This paragraph coming to the notice of Dr. Alleyne of this city, he remembered to have met while traveling in the West, a year or two ago, a lady, the wife of an U. S. Army officer, who stated that she was a daughter of Dr. Fourgeaud, formerly of St. Louis. This happy incident was the means of our being soon placed in possession of a photograph of the doctor and materials for a sketch of his career. We return hearty thanks to all who were instrumental in placing us in a position to do this. [EDITORS ST. LOUIS MEDICAL AND SURGICAL JOURNAL.]



DR. VICTOR J. FOURGEAUD.



to France and entered the medical schools of Paris, where he remained for three years, returning to America in 1841.

He at once took a prominent position among the medical men of Charleston, and stepped into a good practice. The spirit of unrest, however, was strong within him. Old, staid, and hum-drum Charleston was too quiet for him, and his eyes turned to what was then the "Far West"—St. Louis with its large and heterogeneous French and Creole population; St. Louis, the frontier station of the agents and employes of the American Fur Company, of the trade with the plains and mountains of the Southwest, with all the wild adventure that this trade then meant; and so in 1842 he left Charleston and made his way to St. Louis.

How soon he found congenial spirits is demonstrated by the fact that we find him contributing an article (*Auscultation During Pregnancy*) to the very first number of this journal—that for April 15, 1843. There is scarcely an issue of the first volume, indeed, that does not contain something from his pen. Some of these communications are translations from the French or the German, but they are all upon subjects comparatively new to the medical profession of America. They occur along between pages written by M. M. Pallen, J. V. Prather, W. A. McDowell, Wm. M. McPheeters, M. L. Linton, C. A. Pope, J. B. Johnson, etc., and are redolent of the eagerness, industry and earnestness that marked those days in the medical history of St. Louis.

Not until Vol. III. (1845-46), however, do we find his name inscribed as one of the editors, along with Linton and McPheeters. In the August number, 1845, he commenced a remarkable series of papers entitled "*Eclecticism in Medicine*," which is a review of the revolutionary history of medical systems and schools from the remotest times, brought down to his own days. It ran through a dozen numbers and comprised about 100 pages of the JOURNAL (then the same size, and printed with the same kind of type used by us to-day).

Nothing more from his pen appears in the JOURNAL until April, 1847, when there is a report in full of a masterly lecture on the History of Medicine, delivered before the Medico-Chirurgical Society of St. Louis, December 23, 1845. It is marked "No. 1, Introductory," and was evidently intended as the first of a series; but further on in the same number (April, 1847, p. 516) we find the following announcement:

DR. FOURGEAUD.—The connection of our esteemed friend and co-editor with the ST. LOUIS MEDICAL AND SURGICAL JOURNAL has ceased. We doubt not that our readers will regret this. Why Dr. Fourgeaud should leave St. Louis for the shores of the far-off Pacific we acknowledge that we can see no good reason—that is, we can see no good reason why a physician in a good and lucrative practice, surrounded by numerous friends, in the enjoyment of all that wealth can afford, in a rapidly advancing and flourishing city; blest with all the faculties and endowments, moral and intellectual, for acting a glorious part on such a theatre, should voluntarily turn aside from all of these and take up his abode in California. Only to the burning spirit of adventure, which is nowhere so powerfully in operation as in this country, and which beckons with wizzard charms toward unexplored climes and untrodden coasts—to the mysterious and yet all-potent operations of this spirit only can we attribute such conduct. If our influence could have counteracted such a spirit, the profession of St. Louis would not have lost one of its most brilliant ornaments. As it is, all that we can do is to offer a heartfelt wish that our noble and enthusiastic friend, as he follows westward the star of empire, may realize all the enchanting visions of his imaginings, and find an Eutopia equal to his fondest hopes.

L.

And henceforth his name appears no more in the JOURNAL, until nearly a half century later it is dragged out of the musty volumes of the old files! But afar off, “on the shores of the Western Ocean, the will of the Gods was accomplished,” and the “curse of the wandering foot” was to work out its own ban.

In reading the sketches of Dr. Fourgeaud's later life on the Pacific, kindly furnished us by the Society of California Pioneers, one peculiar trait of his character is most striking—the deliberation with which he moved after his mind was made up, and the tenacity with which he held to a project once determined upon. It would be out of place, even if we had the time, for us to go into Dr. Fourgeaud's subsequent history with any degree of minuteness, but his journey from St. Louis to California was so characteristic of the man that we would altogether fail to convey a true conception of him did we fail to note it *in extenso*.

As the physician of a number of the leading spirits of the American Fur Company, he had abundant opportunities to become more or less conversant with the dangers and hardships of the journey that he had determined to make. The same men could, and did, advise him as to the outfit necessary; but in order that there might be absolutely no mistake, nothing neglected, and that he should start prepared for every emergency, after leaving St.

Joseph (then the point of departure for all such expeditions) he encamped for some time within twenty miles or so of the limit of civilization in order to submit his outfit to such tests as would make sure that nothing necessary had been forgotten. When convinced that he was "fixed" he proceeded to the "Lone Elm," the place of rendezvous for all trans-continental travel at that time. The journey across the plains occupied just six months, and although the party to which he attached himself endured incredible hardships they arrived safely at their point of destination.

Dr. Fourgeaud at once took a high place among the settlers, both as a man and as a physician, and after occupying positions of official trust, during the troublous days of the Vigilance Committee, etc., he finally settled down to the practice of medicine and the enjoyment of his private fortune. He made several trips back to the "States" and to Europe, and died finally, January 2, 1875, at his home in San Francisco, lacking just one month of being sixty years old.

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## Dermatology and Genito-Urinary Diseases.

**Urticaria and Death after Ovariectomy.**—Omori and Ikeda (*Centralbl. f. Gynak.*) of Fukuoka, Japan, make note of this case in a series of 100 ovariectomies. The patient was aged 54; the tumor was a small dermoid, universally adherent to intestine and omentum, the pedicle was long, and also adherent to the surface of the tumor. On the morning of the fifth day the temperature rose very suddenly, and the whole body was covered with an eruption having all the characters of urticaria. Death occurred within a few hours. The fatal result was attributed to peritonitis, but the authors of the paper admit that they were doubtful on the point.

**Reaction of the Sweat in Health.**—Ernst Heuss (*Monats. f. prakt. Derm.*) as the result of a careful and methodical investigation, finds that the whole cutaneous surface of a healthy man has an acid reaction, which varies in intensity in different parts;

that the sweat of a man at rest is acid at the time it escapes from the sweat ducts. As the result of five experiments it was shown that, whilst an injection of pilocarpin increases the quantity of sweat, it led to a diminution of the acidity, and even to alkalinity. The influence of a vapor bath resembled that of injections of pilocarpin. Decomposed sweat, such as is found in the soles and the axillæ, is alkaline. The author draws a distinction between the normal natural acidity of the epidermis and the acidity of the sweat, from which it is independent. Even when the sweat is alkaline, the natural reaction of the epidermis in its deeper layers is acid.

**Vulvitis with "Gonorrhœal Rheumatism" in a Child aged Two.**—Lop (*Gaz. dez. Hôp.*) relates a case of mono-articular arthritis following vulvitis in a girl aged 2. It demonstrated the close relations between vulvitis in virgins and true gonorrhœa. The child was admitted into the hospital on January 5th, 1892. She had suffered from discharge for a fortnight; it was free, tenacious, and greenish yellow; the vulva was acutely inflamed. On the ninth day after the commencement of the discharge a painful swelling appeared in the right radio-carpal joint. On admission the wrist was red, tender, and much swollen. There was absence of fever, urethritis albuminuria, and cardiac or pulmonary complication. It appeared that there was no reason to suspect venereal taint of any kind. The discharge was carefully examined, and gonococci discovered. Sublimate lotions, and painting of the parts with a 5 per cent. solution of nitrate of silver, soon cured the local discharge. After fifteen days of antiseptic treatment no more gonococci could be found. At the same time the articular complication subsided. Opinion is still divided, but many authorities deny that the gonococcus is a specific germ, and declare that they have detected it in the vulvitis of virgins.

**Sarcomatosis of Skin.**—Touton (*Münch med. Woch.*) records a remarkable case of so-called sarcomatosis of the skin of a leukæmic or pseudo-leukæmic basis. Some two years previously a man, aged 57, began to suffer from weakness. His liver was then found to be enlarged, the spleen being unaffected. Some days later an eruption of nodules began to appear in the skin.

There was burning pain in the skin and also pain in the legs. The glands of the neck and groin were somewhat enlarged. The gums were swollen and there was a yellowish white infiltration of the tonsil. Later there was hæmorrhage from the intestines. In a year's time he had almost completely recovered under the use of arsenic. Twelve months still later he was in good general health, but there was a nodule to the left of the mouth. There was doubt as to whether this was a recurrence. Scars were seen on the body and arms. As to diagnosis, the rash was not due to drugs nor to syphilis or diabetes. Farcy was excluded by inoculation experiments. Unfortunately no examination of the fresh blood was made, but many nucleated lymphocytes were seen in the sections. The author speaks of the relation of leukæmia, pseudo-leukæmia, and the skin affections associated with them, and he refers to cases of leukæmia cutis. He thinks that the term "idiopathic" will disappear in regard to so-called sarcomatosis of the skin, and that the disease will be looked upon as a lesion of the blood or blood-forming organs. Perhaps where the skin is greatly affected the spleen and lymphatic glands are but slightly involved. When arsenic was being given in this case a zone of reaction was noted about the nodules. In an excised nodule numerous round and spindle-shaped cells were seen. There were also larger cells with two nuclei and karyokinesis was visible. Small nerves were present in the sections. The infiltration had taken place in the reticular part of the cutis, and the pressure of this upon the vessels had led to changes in the epidermis over the nodule, thus accounting for the scales and crusts, as well as (with secondary infection) for the ulcers seen in various parts of the patient's body. Among micro-organisms, the author found (1) cocci unconnected with the disease, and (2) protozoa-like bodies. Among the tumor cells, and four or five times their size, were seen round or roundish-oval bodies (sporulation cysts). These bodies were made up of globules (sporoblasts) surrounded by a homogeneous membrane which when broken allowed the sporoblasts to escape. Syzygia were also seen. The author thinks these structures best explained by the protozoa theory, and that their abundance in the tumor and the presence of sporoblasts in the blood was more than a mere incidental occurrence.

O-D.

## Excerpts from Russian and Polish Literature.

**Treatment of Typhus Fever and Scurvy.**—In the *Saratovsky Sanitarnyi Obzor*, No. 14, 1893, p. 539, Dr. Nikolai S. Sheshmintzeff, of Tzaritzyn, writes that during the last epidemic of typhus fever he obtained very gratifying results from disinfecting the patients' intestines with creolin. The following formula was employed:

- R Creolini .....gtt. xxv.  
 Aquæ destillatæ .....120 grammes.  
 M. Sig.: A teaspoonful of the mixture to  $\frac{1}{2}$  tumblerful of water, 5 or 6 times daily.

Of adjuvants, only a combination of antifebrin with camphor was used (for antipyretic purposes).

Dr. Sheshmintzeff states further that he successfully treated epidemic scurvy by the following means: 1. General baths at 29° or 30° Reaum. (97.25° or 99.50° F.), repeated once daily. 2. Yeast, freely given internally with some water. 3. Diet, consisting mainly of potatoes, cabbage, onions, and milk. 4. For cardiac weakness convallaria majalis was prescribed. 5. Articular rigidity was treated with massage and painting with iodine tincture. Muscular contractions were strikingly relieved by massage and warming compresses. The patients were discharged cured, on an average, in from fifteen to twenty days.

**Ichthyol in Erysipelas.**—In the *Yüjno-Rüsskaia Meditzinskaia Gazeta*, No. 2, 1893, p. 26, Dr. Grigory A. Zelensky, of Kherson, emphatically argued that ichthyol affords "an almost specific remedy" for erysipelas of any form. The author's formula is this:

- R Ammonii sulpho-ichthyolici,  
 Spiritus ætherel.....ãã 1 part.  
 Collodii .....2 parts.  
 M. Sig.: To paint the diseased areas.

In pre-ichthyolic times he frequently resorted to Trousseau's method (which of late was advocated especially by Dr. Kinyier, who erroneously ascribes its introduction to Cavuzzani), the formula being as follows:

R   Acidi tannici,  
      Camphoræ.....āā 2 grammes.  
      Ætheris sulphurici .....15.0.

M.   Sig.: To paint the affected parts every 3 or 4 hours.

The writer's experience, however, showed that ichthyol was a great deal superior to Trousseau's mixture. In some cases of migrating erysipelas affecting both sides of the patient's body he painted one side with the former preparation, and the other with the latter, the morbid process subsiding under the influence of ichthyol "out of any comparison more quickly" than under that of Trousseau's solution.

**Bacteriology of Soft Chancres.**—In the *Vratch*, No. 5, 1893, p. 121 (with two drawings), Dr. Oscar V. Petersen, of St. Petersburg, publishes the results of his researches on the subject which he conducted conjointly with Dr. L. V. Besser. On the whole, they have examined fifteen cases of soft chancres. Having washed out an ulcer with a permille solution of corrosive sublimate, they extracted (by means of a sterilized needle), some discharge with detritus, spread the matter over a glass plate, and stained the specimen with Sahli's solution (sixteen grammes of a five per cent. solution of borax, twenty grammes of a saturated aqueous solution of methylene blue, and twenty-four grammes of distilled water), after which they examined it under the microscope (Leitz's Ocular No. 3, and immersion system one-half). In every one and all of the cases there were detected the characteristic microbes which had been first described by Dr. Ducrey, of Naples, and subsequently by Dr. Krefling, of Christiania (see the *Archiv fuer Dermatologie und Syphilis*, 1892, Vol. II). In other words, there were invariably present peculiar short and relatively rather thick rod-shaped bacteria, measuring from 1.48 to 2M in length, and from 0.5 to 1.0M in width, and resembling the figure 8 (Ducrey, Petersen), or dumb bells (Krefling). The bacilli were partly lying free (singly, or in rows, or in groups), and partly embedded within leucocytes. In the discharge taken before any treatment, the rods were met with in fairly large numbers; later on, as the healing process advanced, their numerical strength gradually and steadily decreased, while after the ulcer had become clean or healthy looking the micro-organisms disappeared altogether.

Analysing the results of his own and his predecessors' investigations and reviewing the literature of the subject, Dr. Petersen

comes to the conclusion that, first, soft chancre is caused by specific pathogenic bacilli which somehow settle down on an injured cutaneous surface; and, second, therefore soft chancre constitutes a disease *sui generis* which (contrary to the teachings of Kaposi, Jonathan Hutchinson, Spirino, Langlebert and others), has nothing whatever in common with syphilis, and cannot possibly be produced by "purulent discharge of any kind" (contrary to Finger's theory).

**Poisoning by Carbolic Acid.**—In the *Gazeta Lekarska*, No. 6, 1893, p. 156, Dr. Iwan I. Jozefowicz, of Kovno, relates an interesting case of acute carbolic poisoning in an infant of ten months. The little girl being constipated, an enema, made of water and glycerine, and administered by means of an irrigator which happened to contain "a certain quantity (*nicco*) of a 0.5 per cent. solution of carbolic acid." In a few moments the child suddenly swooned. When seen by the writer shortly afterwards the patient was suffering from profound collapse, with extremely irregular respiration ("about one stertorous inspiration per one minute"), complete cutaneous and corneal anæsthesia, contracted and insensible pupils, palpebral tremor, pulseless fontanelle, subnormal temperature (35.5° C. in the rectum), etc. The throat was filled up with viscid mucus. The treatment consisted in removing the latter with a finger, artificial respiration of one-half hour's duration, general hot bath (repeated thrice), rectal injection of a weak solution of sulphate of sodium (as an antidote), inhalations of ammonia alternately with sulphuric ether, and the internal administration of an arnica infusion and tea with wine. In about five hours all serious symptoms subsided and the girl quietly fell asleep. On the next day a circumscribed right-sided pneumonia supervened, which, however, ended in resolution in a few days. During the first two days or so the urine was turbid and dirty green, contained some albumen, and (when treated with perchloride of iron) gave a characteristic reaction of carbolic acid. The microscopical examination of sediments revealed the presence of scanty red blood corpuscles, epithelium, and abundant crystals of uric acid. The little patient ultimately made a complete recovery. According to the author's opinion, the pulmonary inflammation was the so-called *Schluckpneumonie* of German authors and should be attributed to the indirect efforts of carbolic acid.

**Treatment of Asiatic Cholera.**—In the *Meditzinskaia Beseda*, Nos. 1 and 2, 1893, p. 3, Dr. N. I. Napalkoff, of Voronesh, contributes a detailed report on a cholera epidemic which recently visited the villages Tchijevka and Petino. Of 174 patients who came under his care 66 died, the remainder recovering. The author practised the following treatment:

1. In order to expel cholera microbes and leucomaines from the intestinal tract, he gave either calomel in from 0.5 to 1 gramme doses, repeating them if necessary, up to three times; or thirty grammes of castor-oil with 0.5 of naphthalin.

2. Vomiting was arrested by restriction of drinks, and the internal use of ice; or, when the latter could not be tolerated by the stomach, of hot water or hot strong tea in tablespoonful doses. Good results were also obtained from the internal administration of iodine tincture (two or three drops at a time, with some water), opium or morphine in small doses:

R̄ Tincturæ opii simplicis *Ph. Ross.*.....gtt. iij.

Tinct. menthæ piperitæ.....gtt. v..

M. Sig.: Pro dosi.

the application of sinapisms to the epigastrium, hot baths.

3. Cramps were best relieved by inunctions of volatile liniment with chloroform.

4. As to diarrhoea, for the first two days of the disease the treatment was limited to the application of dry heat to the abdomen, while from the third day opium with tincture of nuxvomica was given internally. Salicylate of bismuth proved to be useless.

5. In all cases the patient's body was kept warm by means of sacks, with hot ashes or oat-grains, hot bottles, etc.

6. In all, some stimulant remedies were administered, the best effects being obtained from valerian, camphor (internally or hypodermically), caffeine, and wine.

7. Retention of urine was best removed by hot baths.

8. Nephritis was successfully treated by milk diet, rest, and protection from exposure.

9. In the typhoid stage an ice-bag was applied to the head for a short time and then salicylates in small doses were given.

Berne, Switzerland.

VALERIUS IDELSON, M. D.

## Society Proceedings.

### PROCEEDINGS OF THE PETTIS COUNTY MEDICAL SOCIETY.

SEDALIA, Mo., Feb. 1893.

Stated meeting of the society.

Dr. E. F. Yancy, President, in the chair.

Dr. Geo. H. Scott reported the case of a girl, age ten years, who presented some of the symptoms of diphtheria, but seeing the case for the first time he had deferred a positive diagnosis. His object in reporting the case was to call the attention of the members to the fact that, in the formative stage of many diseases, we cannot give a positive opinion. He advocated the removal of about one-third of the tonsils, and the application of the glycerole of tannin, and later arg. nit., twenty grains to one ounce.

Dr. W. H. Evans said that he had never seen a case of diphtheria that was not in a child with large flabby tonsils, and he advised the removal of all such tonsils.

At the subsequent meeting, Dr. Yancy in the chair, Dr. W. O. Dunlap read a paper on the bacillus of tuberculosis, incidentally referring to other micro-organisms in the production of disease. The doctor's paper covered the ground pretty thoroughly, as to the etiology and treatment of those forms of infarction, and recommended the general upbuilding of healthy tissue by properly selected foods, mainly the animal and fatty.

Dr. Scott was hardly prepared to say whether the germ theory of tuberculosis was sufficiently understood at this time to warrant any positive assertions regarding their behavior in the particular disease.

Dr. W. H. Evans endorsed the paper in the main, and spoke at some length as to the bacillus tuberculosis.

Dr. Trader was an advocate of the bacillus theory, and recognized the fact that great advancement had been made in recent years in this line of study; and although the fact may appear that these micro-organisms are non-visible, they nevertheless rapidly proliferate. The power to multiply is not given when the healthy tissue in which they take up their abode is deprived of life and rendered a fit nidus for these putrid producing atoms.

Dr. Shadburn believed in the theory of Koch, and that we have a distinct bacillus tuberculosis, and that in the field of their operation osseous as well as glandular and soft tissues were involved.

Dr. McNeil believed in the bacillus theory in tubercular disease, and spoke well of the paper. Society adjourned.

DR. E. F. YANCY, *President.*

DR. GEO. E. MCNEIL, *Secretary.*

Respectfully forwarded,

JNO. W. TRADER,

*Chairman Committee Publication.*

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### Book Reviews.

#### **Mineral Springs and Health Resorts of California.**

With a Complete Chemical Analysis of Every Important Mineral Water in the World. A Prize Essay—Annual Prize of the Medical Society of the State of California, Awarded April 20, 1889. By WINSLOW ANDERSON, M. D., M. R. C. P. Lond., and M. R. C. S. Eng., etc. 8vo., pp. 384. Illustrated. [San Francisco: The Bancroft Co., 1892. Price, \$1.50.

This is certainly a complete work on the subject with which it deals, and clearly shows the wealth of the Golden State in mineral springs and health resorts. The copious illustrations materially aid in presenting an array of spas of the most dazzling description and existing in such numbers that a prospective visitor would indeed be puzzled in making a choice. A particularly valuable portion of the work to the physician is that giving the analyses of all the important mineral waters of the world and is, in itself, well worth the very small price asked for the book.

#### **Proceedings of the Philadelphia County Medical Society.**

Edited by LEWIS H. ADLER, Jr., M. D., Vol. XIII. Session of 1892. 8vo., pp. 531. [Philadelphia: Printed for the Society, 1892.

Our library table is once more graced with one of those handsome volumes which for some years past have been reflecting so much credit upon the Philadelphia County Medical Society and its members. Our readers may remember that, from time to time, we have taken the opportunity of printing some of the papers read before that body. In the present volume they are all reproduced and grouped according to subjects, thus making a much better effect than if placed in the order in which they were read. The discussions which are appended are short and to the

point. The editor is certainly to be complimented upon the manner in which he has arranged the transactions, which present a very neat appearance. Dornan is the printer, and his reputation is such that nothing further need be said to assure all that the volume is well printed and bound.

**Transactions of The American Orthopedic Association.**

Vol. V. Sixth Session, held at New York City Sept. 20-22, 1892. 8vo., pp. 282. [Philadelphia: Published by the Association, 1893.

The transactions of this Association have always been of the greatest value and the demand for copies has been steadily growing every year. The present is no exception to the rule. In fact, judging from its contents, we think that we feel justified in saying that there will be a greater number than ever who will be desirous of possessing it. The subjects presented are of more than the average interest to general practitioners as well as to orthopedic surgeons. The illustrations given are of a superior order of merit and are comparatively profuse. The meeting, whose transactions are given in the volume before us, was a memorable one in the history of the American Orthopedic Association and the contributors of papers appear to have been inspired for the occasion. The mechanical execution is most excellent, but that is the usual thing with all the books which issue from Dornan's press.

**Handbook of Massage.** By EMIL KLEEN, M. D., Ph. D. Authorized Translation from the Swedish. By EDWARD MUSEY HARTWELL, M. D., Ph. D. 8vo., pp. 316. [Philadelphia: P. Blakiston, Son & Co., 1892. Price \$2.75.

Massage as a therapeutic measure certainly deserves a much higher position than has generally been accorded to it. This disesteem into which it temporarily fell was no doubt due to the methods of self-styled masseurs who used it as a means whereby to promote charlatanry and, in some cases, even worse. Thanks to the enlightened efforts of scientific men, it is being firmly set in its true place, which is an important one in the realm of therapeutics. Of its true worth we are cognizant, having seen marked examples of its potency in cases where no other possible means could have been employed to bring about the successful issue which obtained. The book before us is an able exposition of the method, written by a competent man, both as a physician and as a scientific masseur. His directions are clear, and he is no blind enthusiast. He points out the limitations of the various methods and is critical in his directions. As a practical hand-book we can recommend Kleen's, more especially since the translator has given us a meritorious interpretation of the work, and one upon which he spent much time and care.

**Hand-Book of Insanity.** For Practitioners and Students. By DR. THEODORE KIRCHHOFF. Small 8vo., pp. 362. Illustrated with Eleven Plates. Medical Practitioners' Library. [New York: William Wood & Company, 1893. Price, maroon parchment muslin, \$2.75; flexible leather, \$3.50.

The book before us constitutes the first volume issued, of the Medical Practitioners' Library, which is to be forthcoming from the press of Messrs. Wood & Company. No better initial number could have been chosen, as the author is one who has firmly established his reputation as one thoroughly acquainted with mental diseases. His experience as physician to the Schleswig Insane Asylum has given him more than ordinary facilities to familiarize himself with the subject, and the analytical method he pursues in its treatment is ample evidence of the thoroughness of his methods. Subjects such as perverted sexual sense, which usually receive little or no mention, find a ready discussion at his hands. An interesting as well as important chapter is that devoted to the diagnosis of mental disorders and their border lines. A feature of this little work which we desire to commend is the plates giving excellent photo-engravings of the facial peculiarities observed in certain mental disorders. Too little attention has heretofore been paid to the graphic representation of these, and they are certainly most helpful in elucidating the written descriptions. The present work is certainly a most excellent one.

**Lectures on Mental Diseases.** Designed Especially for Medical Students and General Practitioners. By HENRY PUTNAM STEARNS, A. M., M. D. Small 8vo., pp. 636. With Illustrations. [Philadelphia: P. Blakiston, Son & Co., 1893. Price \$3.00.

In this volume we are presented with the views of a practical man given in a practical manner. The author has taken the pains to dress over, condense and arrange twenty-nine lectures on diseases of the mind, and he has certainly succeeded in making them not only interesting but instructive. The lectures on mania and general paresis are especially noteworthy. The latter contains specimens of handwriting in different stages of the condition, wherein are pointed out the peculiarities indicative of the changed mental condition. This is a subject to which but very little attention has been paid heretofore in text-books, although it has occupied a great deal of that of alienists, and its forensic bearings are certainly of the highest importance, more especially in determining the question of testamentary capacity. A valuable appendix closes the volume. It contains a condensation of the most important parts of the laws of the several states and territories relating to the duties and responsibilities of physicians concerning the insane, at the present time. Hypnotism we can-

not find mentioned in the body of the work, and we are rather disappointed at this omission, in view of the wide-spread interest it is now attracting. Hallucinations, illusions and delusions (sane and insane), are fully considered and, withal, in such a perspicuous manner as to greatly simplify what frequently prove difficult and intricate subjects to the student of psychical phenomena. We have no doubt that these lectures will meet with a large sale.

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### Literary Notes.

**Books Received.**—The following books were received during the past month and will be reviewed in forthcoming numbers of the JOURNAL.

Proceedings of the Philadelphia County Medical Society. Edited by Lewis H. Adler, Jr., M. D. Vol. XIII. Session of 1892. 8vo. pp. 531. [Philadelphia: Printed for the Society. 1892.]

Transactions of the American Orthopedic Association. Vol. V. Sixth Session, held at New York City, September 20, 21 and 22, 1892. 8vo. pp. 282. [Philadelphia: Published by the Association. 1893.]

Transactions of the American Ophthalmological Society. Twenty-eighth Annual Meeting, New London, Conn. 1892. 8vo. pp. 245-458. [Hartford, Conn.: Published by the Society. 1892.]

Diseases of the Skin. A Manual for Students and Practitioners. By Charles C. Ransom, M. D. The Students' Quiz Series, No. 8. Series edited by Bern. B. Gallaudet, M. D. 12mo. pp. 198, with 28 Illustrations. [Philadelphia: Lea Brothers & Co. 1893. Price \$1.00.]

History of the Life of D. Hayes Agnew, M. D., LL. D., by J. Howe Adams, M. D. 8vo. pp. 376. With fourteen plates. [Philadelphia and London: The F. A. Davis Co. 1892. Price, extra cloth, \$2.50 net; half-morocco, \$3.50 net.]

Diseases of the Skin forms the subject matter of the latest issue of the Students' Quiz Series of Lea Brothers & Co., of Philadelphia. The author, Dr. Charles C. Ransom has succeeded in condensing the essential facts of dermatology in a manner which is interesting, being rendered more so by the excellent illustrations which are given. As a remembrancer of more extensive reading this handbook possesses superior advantages. It bears throughout the marks of thoughtful attention and care. The completeness is also a feature of which we can speak with commendation. The general outline of cutaneous syphilis which is given is excellent. We have no doubt that this number of the Quiz Series will meet with favor, more especially as its price, \$1.00, is quite reasonable.

## Melange.

**Pan-American Medical Congress.**—THE SECTION ON ANATOMY will be devoted to the study of human and comparative anatomy and of biology as departments of natural science, as well as in their relations to practical medicine and surgery. Members of the medical profession in Latin-American countries are urged to prepare scientific communications to be read before the section. Much valuable material will thus be collected, and articles of scientific value will find permanent place in the Transactions of the Congress. Dr. John B. Roberts, of Philadelphia, is the Executive President; Dr. D. S. Lamb, of Washington, D. C., is the English-speaking Secretary, and Dr. A. M. Fernandez, of New York, is the Spanish-speaking Secretary.

**SECTION ON GENERAL MEDICINE.**—This unique assemblage promises to be one of the most important events that has occurred in the history of medicine in the Americas. Its success is assured by the large number of valuable papers already promised. The Section on General Medicine, which is one of the most important that has been created, bids fair to be one of the most successful in the entire Congress; and already many valuable contributions are in process of preparation, and will be read at the meeting in September. It is hoped, with the hearty co-operation of all physicians living not only in North but also in South and Central America, that the work in this Section will be memorable; and each physician living on this continent is requested to join this most important Section, and to prepare a contribution to be read before that body. It is especially requested that those intending to join this Section or to read papers shall at once send their names, with titles of papers, to the secretary, Dr. Judson Daland, No. 319 South Eighteenth Street, Philadelphia, Pa., so that they may be noted on the calendar and given their appropriate places.

**SECTION ON HYGIENE, CLIMATOLOGY AND DEMOGRAPHY.**—Persons proposing to present papers before this Section are requested to communicate with either of the undersigned *immediately*, that the subjects may be properly classified for the program of the proceedings of the Congress. The only limitation as to subject matter is that it shall have a sanitary climatological or statistical bearing. Members of the Section on State Medicine of the American Medical Association, of the American Public Health Association, the American Climatological Association, the Amer-

ican Academy of Medicine, and of State and Municipal Boards of Health, are especially invited to contribute the results of their several experiences. The authorized languages of the Congress being Spanish, Portuguese, French and English, papers may be presented in either, to be translated in the others, for which reason their text should be in the hands of the secretaries at the earliest possible date. Peter H. Bryce, M. D., Secretary (English), Toronto, Canada; Pedro José Salicrup, M. D., Secretary (Spanish), 129 East 12th Street, New York City; Albert Gihon, M. D., President, 145 East 21st Street, New York City.

**SECTION ON MEDICAL PEDAGOGICS.**—The Pedagogic Section will devote its attention especially to the history of the development of medical education in America.

In the papers presented by leading teachers, recent advances in methods of instruction will be considered.

The *art of teaching*, which is regarded as a study of great interest in other branches of learning, has received hitherto but little attention from the medical profession.

The Section on Medical Pedagogics will therefore be made a prominent feature of the Congress and it is hoped that those interested in medical education will coöperate in the work of this Section by being present, and by actively engaging in the discussion of subjects presented.

Any inquiries or communications may be made through the secretaries. J. Collins Warren, M. D., Executive President, Boston, Mass. Chas. L. Scudder, M. D., English-speaking Secretary, Boston, Mass.; Wm. F. Hutchinson, M. D., Spanish-speaking Secretary, Providence, R. I.

**The New York State Medical Law.**—As this does not seem to be clearly understood, we take pleasure in reproducing the following requirements as given by Dr. M. J. Lewi in the *Medical Record*. They are as follows:

1. Satisfactory evidence of preliminary academic education as follows: Either (a) academic degree from some recognized degree granting college; (b) certificate of a full year's course of study in any registered college or university; (c) certificate of satisfactory completion of three years' course in some recognized high school or academy; (d) certificate of having passed preliminary Canadian medical matriculation examination; (e) certificate of having passed matriculation examination of any university

in Great Britain or Ireland ; (*f*) Regent's diploma ; (*g*) Regent's pass-cards for any twenty counts, not including reading or writing.

2. Diploma of M. D., or license from some foreign country conferring full right to practice medicine in all its branches in the country in which it was issued.

3. A certificate of moral character from at least two physicians practicing in the State.

4. Applicant must be more than twenty-one years of age.

5. Must have attended at least three full courses of lectures (six months' minimum course and no two in one year).

Such are the qualifications exacted from all who desire to be licensed to practice medicine in New York State, previous to being allowed to enter the examination ; and all future practitioners, whether graduates in medicine from one of our own State institutions or from South Africa, are put to the same test.

Licentiates from other State examining boards in the United States, whose licenses were obtained after having passed tests such as the above, may have their licenses endorsed and be granted the right to practice without examinations.

**Meetings of State Medical Societies.**—The following gives Secretary's name, with time and place of meeting, 1893:

Arkansas—L. P. Gibson, Little Rock; Batesville, May 31.

California—W. W. Kerr, San Francisco; San Francisco, April 18.

Colorado—A. S. Lobingier, Denver; Denver, June 20.

Connecticut—N. E. Wordin, Bridgeport; Hartford, May 24.

Delaware—W. C. Pierce, Wilmington; Cape Henlopen City, June 13.

Georgia—D. H. Howell, Atlanta; Americus, April 19.

Massachusetts—F. W. Goss, Boston; Boston, June 13.

Michigan—C. W. Hitchcock, Detroit; Muskegon, May 11.

Minnesota—C. B. Witherle, St. Paul; Minneapolis, May 21.

Mississippi—H. H. Haralson, Forest; Jackson, April 19.

Missouri—L. A. Berger, Kansas City; Sedalia, May 16.

Montana—T. H. Ellis, Butte; Great Falls, April 19.

Nebraska—Geo. Wilkinson, Omaha; Nebraska City, May.

New Hampshire—G. P. Conn, Concord; Concord, June 20.

New Jersey—Wm. Pierson, Orange; Spring Lake, June 27.

New York—E. D. Ferguson, Troy; New York, October 10.

North Carolina—R. D. Jewett, Wilmington; Raleigh, May 9.

North Dakota—D. S. Moore, Jamestown; Jamestown, May 25.

- Ohio—T. V. Fitzpatrick, Cincinnati; Put in Bay, June.  
Oregon—C. H. Wheeler, Portland; The Dalles, June 13.  
Pennsylvania—Wm. B. Atkinson, Philadelphia; Williamsport, May 16.  
Rhode Island—W. R. White, Providence; Providence, June 1.  
South Carolina—W. Peyre Porcher, Charleston; Sumpter, April 19.  
South Dakota—R. C. Warne, Mitchell; Huron, May or June.  
Tennessee—D. E. Nelson, Chattanooga; Nashville, April 11.  
Texas—H. A. West, Galveston; Galveston, May 2.  
Vermont—D. C. Hawley, Burlington; Rutland, October 12.  
Virginia—L. B. Edwards, Richmond; Charlottesville, October 14.  
Washington—G. D. Shaver, Tacoma; Tacoma, May 10.  
West Virginia—D. Mayer, Charleston; Parkersburg, June.  
Wisconsin—C. S. Sheldon, Madison; Milwaukee, May 3.

### Local Medical Matters.

**Dr. Borck Retires.**—Dr. Edw. Borck, the well-known St. Louis surgeon, has decided to retire from active practice. He is desirous of disposing of his Private Surgical Home. This is a ten-room brick house, well appointed and conveniently located. Dr. Borck will sell the lease, all improvements and certain fixtures for \$1,000 cash. The lease runs to April 1, 1895, the rent being \$40 per month. This is an unexampled opportunity, as the office practice alone is worth two or three thousand a year. We are sorry to see that Dr. Borck has decided to relinquish practice and wish him continued good health and comfort.

**Battery Ambulance Corps.**—Since the last meeting of the Association of Surgeons of the National Guard, held in this city, the local physicians have taken a great interest in the formation of a hospital corps in the Missouri National Guard. Professor J. B. Keber, Secretary of the Beaumont Hospital Medical College, Surgeon of Battery "A," the St. Louis Light Artillery, assisted by Dr. M. G. Guhmann, the Hospital Steward, have, through the generous donations of their many friends, almost completely equipped their corps. After they had secured a supply of medicines and surgical dressings they only lacked litter-bearers' pouches and an ambulance. Professor A. C. Bernays, M. D., learning of their wants and having become interested in the work, generously came to their assistance and has ordered for them a completely equipped army medical ambulance, which, it is understood, will be delivered to them the first week of May. Very soon after this arrives, it is useless to say, our hospital and ambulance corps will be unexcelled in the West, if in the U. S. National Guard. The word *our* is emphasized, as the JOURNAL is especially interested in this undertaking.

## Miscellaneous Notes.

**Inflammatory Rheumatism.**—Dr. W. V. English, of Keokuk, Ia., reporting on a case of this nature, writes:

During the past winter a remarkable case of inflammatory rheumatism came to my attention, which was remarkable for its persistency in constantly growing worse while under the lines of well established treatment. Not a whit of encouragement came from the treatment until the patient was confined to Tarrant's Seltzer Aperient as a neutralizer of the cause. Success complete crowned the effort. It is a sensible treatment, including the principles of whatever therapeutical means one would employ.

**Thiol in Sore Nipples.**—One of our readers, who has adopted the use of thiol in his practice, writes that he employs the remedy for sore nipples thus:

Thiol, 1 dr., rubbed up with  $1\frac{1}{4}$  drs. glycerin, to which is then added in turn  $1\frac{1}{2}$  drs. lanoline and 2 ozs. olive oil. Applied to the nipples, this ointment relieves the pain at once, and it produces prompt healing of the fissures; it can be readily washed off with a soft sponge. As thiol is perfectly odorless, and also free from all toxic properties, it is particularly well suited for the indicated use, and certainly far superior to the ill-smelling ichthyol.

**On the Action of Apioline.**—Dr. Pelletan (Paris) in his clinical notes on Apioline, states that the drug administered in spherical capsules of 20 centigrammes each, has proved in his hands a true stimulating emmenagogue, acting directly on the ovaries and uterus or the ends of the nerves contained in them by irritation of the mucous membrane during its elimination through the utricular glands and by producing hyperæmia of the ovaries during its circulation through them; the pain in spasmodic or congestive dysmenorrhœa is thereby relieved.

It is moreover indicated in atonic amenorrhœa, when the uterus and the ovaries are primarily at fault and the inactivity is not due alone to anæmia.

In fact, in all cases amenable to internal remedies, where a correct diagnosis of the symptoms had been made and suitable hygiene and treatment observed, he found apioline relieved the suppression, regulated the catamenia and prevented or removed the accompanying pain and proved to be a most powerful emmenagogue.

**A Protest.**—The following communication speaks for itself:  
GENTLEMEN:—Allow us to call your attention to the article "The Nostrum Cancer" in the March number of *Merck's Bulletin*, the Hessian Trade journal of Merck's Drug House, Hesse Darmstadt, Germany. Is the German a better chemist than the

American? Is not the reverse true? Are the German products advertised in this German trade journal any more ethical than those made by the American chemist and advertised in medical journals? Glance at the articles advertised by German chemists in this trade journal, what do you learn about their formulæ? and how to make them? Examine carefully and draw your own conclusions. Are the medical journals of America more venal and ignorant than the German medical journals? Is the German doctor a better physician than the American? Is it not time for the medical journals of this country to assert their Americanism, and sit down on this German impudence.

Respectfully,

BATTLE & Co., Chem. Corp.

C. A. BATTLE, V. P.

**Cocillana—An Interesting Addition to the Materia Medica.**—Respiratory inflammations always form a large proportion of the physician's cases. A Bolivian remedy which gives promise of much therapeutic efficacy is Cocillana, which was introduced a few years ago through the researches of Professor H. H. Rusby, the eminent botanist.

Experiments were made with it by many medical investigators, who found its action very satisfactory in catarrhal inflammations of the respiratory organs, in coryza, hay asthma, bronchitis, acute and chronic, influenza, and pneumonia.

It possesses also laxative and purgative qualities, and has been employed successfully as a substitute for ipecac and amorphia in catarrhal conditions.

Parke, Davis & Co., who introduced the remedy to physicians, will supply reprints of articles affording information concerning its therapeutic application, and invite the medical profession to test its virtues further by clinical experiment.

They have after much difficulty obtained an ample supply of it, and will be glad to afford any facts desired concerning this or any other of their new remedies for respiratory affections.

**Dr. Albert Ritter von Chrzasczewski**, of Sambos, Galicia, Austria. on November 28th, 1802, writes: "Bromidia is superior to all other hypnotics, and is free from all unpleasant effects."

**A Peddler** once overtook another on the road and tried to pass him. This of course the other objected to, and a spirited altercation took place.

"What do you carry?" at length demanded number one.

"Drugs and medicine," was the reply of number two.

"All right, then go ahead," said the other. "I carry grave-stones."

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## Original Communications.

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CLINICAL LECTURES ON YELLOW FEVER. By JOSEPH JONES, M. D., LL. D., of New Orleans, Louisiana, Professor of Chemistry and Clinical Medicine Tulane University, of Louisiana.

LECTURE II. GENERAL OBSERVATIONS ON QUARANTINE. CONSTITUTION OF THE ATMOSPHERE DURING THE PREVALENCE OF YELLOW FEVER. GENERAL OBSERVATIONS ON THE NATURE OF YELLOW FEVER. COMPOSITION OF THE URINE IN YELLOW FEVER.\*

Gentlemen—In my last lecture (March 5, 1892), I endeavored to present the results of my original investigations in the form of distinct propositions, of which we have thus far presented FOUR.

We will turn aside for a few moments from the further detail of these propositions, to consider briefly some practical results of quarantine in the Mississippi Valley, and the results of an inquiry designed to throw light upon the organic forms in the yellow fever atmosphere.

PRACTICAL RESULTS OF QUARANTINE, 1880, 1881, 1882, 1883.

Efforts to exclude and arrest contagious diseases possess peculiar value when exerted in behalf of the inhabitants of some

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\*Delivered in the Amphitheatre of the Charity Hospital of New Orleans (1892-1893).  
(Reported for the ST. LOUIS MEDICAL AND SURGICAL JOURNAL.)

great commercial metropolis, like New Orleans, whose existence and prosperity are indissolubly bound up with those of the people living upon the banks of her great river and within the bounds of the fertile plains of its mighty valley. During the years 1853, 1854 and 1855, New Orleans lost 12,780 of her citizens by yellow fever, an exotic imported disease; and in 1878 she lost by yellow fever 4,056 souls and about \$15,000,000. The internal or interstate trade of New Orleans equals annually about \$200,000,000, exceeding greatly the value of the foreign exports and imports. Preservation of this internal interstate trade depends absolutely upon an efficient quarantine guarding the approaches of the Mississippi Valley from the Gulf of Mexico.

The exemption of New Orleans and the Mississippi Valley from yellow fever during the years 1880, 1881, 1882 and 1883, has been with justice referred to the rigid system of quarantine inspection, detention and sanitation which the speaker established and executed. These years must be regarded as most important in the history of public hygiene in the North American Republic, in the light of the magnitude of the issues involved, and the importance of the results accomplished.

When in 1880 the Presidency of the Board of Health of the State of Louisiana, was imposed upon the speaker, through the action of his Excellency Louis Alfred Witty, Governor of the State of Louisiana, the quarantine appliances were in a dilapidated condition, and the quarantine system in a deplorable state. Sanitary regulations were daily disregarded by the citizens, and the quarantine laws of the State were openly violated by rich and powerful steamship and railroad corporations.

The sanitary and quarantine authorities of Louisiana were regarded by many with suspicion, dread and hatred, and New Orleans was looked upon as a plague spot; and constant menace to the health and prosperity of the inhabitants of the great valley of the Mississippi.

The diverse opinions of medical men as to the imported or indigenous nature of yellow fever, the pronounced hostility of many of the citizens to measures of quarantine, and the ravages of yellow fever in former years, and more especially in 1878, when it invaded New Orleans, availed itself of all the modern facilities of transportation, and spreading itself broadcast over a wide area of the Mississippi Valley, carrying death and terror;

these were the potent causes which destroyed the confidence of the citizens of neighboring States in the wisdom of the medical profession, and in the honesty of purpose of the merchants of New Orleans, and laid the groundwork for sensational rumors, panics and unnecessary and brutal shot-gun quarantines.

The Board of Health organized in accordance with the provisions of the constitution of 1879, commenced its labors with scanty resources and with the quarantine establishments in a dilapidated condition.

By rigid economy and untiring energy, the quarantine stations were repaired and equipped, the approaches to the southern and eastern shores of Louisiana were strengthened by additional guards.

During the four years, 1880-1883, 4,436 vessels (more than one half, or 2,457, of which were large ocean steamships), exceeding eighty million tons, were inspected by the officers of the Board of Health at the Mississippi Quarantine Station, together with their crews and passengers, which numbered over 100,000. During the same period, 479 vessels from ports infected with yellow fever were held in the Mississippi quarantine, disinfected and fumigated. At the Atchafalaya station 164 vessels, and about one half of which were ocean going steamships, with about 20,000 souls, crews and passengers, were inspected; and at the Rigolets quarantine station about 4338 vessels, chiefly schooners, with about 24,000 seamen and passengers, were inspected during the years 1880-1883.

During the period specified, the Board of Health of the State of Louisiana, through its officers, inspected about 10,000 vessels, which carried not less than 150,000 seamen and passengers.

Notwithstanding the prevalence of yellow fever at Vera Cruz, Havana, Rio de Janeiro, during this period, and notwithstanding the prevalence of yellow fever at Brownsville, Texas, and at Pensacola, Florida, in 1882, and at the Naval Reservation, Florida, and at Brunton, Alabama, in 1883, and notwithstanding the presence of yellow fever at Mississippi quarantine station in 1880 and 1882, New Orleans and the Mississippi Valley were free from this terrible scourge.

The labors of the speaker in Louisiana during the years 1880, 1881, 1882 and 1883, have established the following conclusions:

1. *Yellow fever is not indigenous to New Orleans.*
2. *Yellow fever is not indigenous to Louisiana.*
3. *Yellow fever is not indigenous to the Mississippi Valley.*
4. *Yellow fever can be excluded from New Orleans and the Mississippi Valley by a rigid and effective quarantine.*
5. Quarantine, to be effective, must embrace not merely inspection and detention, but discharge of infected cargoes, thorough ventilation, fumigation and disinfection by the recognized methods of sanitary science.

After a continuous battle of four years duration, in which the vast maritime interests of the State and the powerful influence of the wealthiest railroad and steamship company in the South-western States, were marshalled against the legally constituted health authorities, the Board of Health of the State of Louisiana achieved a memorable and signal victory on the 21st of January, 1884, in the complete and triumphant vindication of its efforts to exclude foreign pestilence from the Mississippi Valley, by the highest legal tribunal of the State of Louisiana.

The decision of the Supreme Court of Louisiana, in Case No. 8,755, is of interest and importance to every State and municipal government in the United States of America; for the doctrine is hereby clearly recognized, that the establishment and enforcement of quarantine by individual states is not a regulation of commerce in violation of the provisions of the Federal Constitution, but is a legitimate exercise of the police powers by the individual States.

The Supreme Court of the United States, in the appeal which was taken by Morgan's Louisiana and Texas Railroad and Steamship Company, from the decision of the Supreme Court of Louisiana, sustained the decision on the 29th of January, 1886; and thus the views and actions of the speaker in his official capacity as President of the Board of Health of Louisiana are now upheld by the finding of the highest tribunal of the Republic.

These judicial decisions, which were the results of my labors, are of prime importance to all local and State Boards of Health in the United States of America.

#### CONSTITUTION OF THE ATMOSPHERE DURING THE PREVALENCE OF YELLOW FEVER.

Relying upon the fact that cold arrests yellow fever, I sought to condense and render palpable to the eye, the poison, by pass-

ing large volumes of the yellow fever atmosphere through ice and ice-cold water by means of carefully constructed bellows. In this manner I threw from 100,000 to 600,000 cubic centimeters of air through ice and ice-cold water.

The products of the condensation thus obtained were examined both chemically and microscopically. In this manner I have subjected the air of localities and rooms, which appeared to be infected with the yellow fever poison, to microscopical and chemical examinations, and I have discovered numerous minute living organic particles, which might properly be termed sporules, having a diameter ranging from  $\frac{1}{100000}$  to  $\frac{1}{300000}$  of an inch; and also numerous living animalculæ, together with minute particles of fatty bodies, scales from the human integument, and fibres from the bedding and clothing.

The sporules resembled most nearly the micrococci and cryptococci of Hillier.

I have observed similar particles in the blood of yellow fever patients, and have observed bacilli in the air and in the blood.

RESULTS OF THE EXAMINATION OF THE AIR OF THE ROOMS IN  
WHICH YELLOW FEVER PATIENTS WERE CONFINED IN  
NEW ORLEANS, LA., 1878.

1. *Group of Cases. Brick House No. 363 Magazine St., corner of Thalea St., August, 1878.*

No local cause of disease could be discovered in the brick building, nor in the paved streets immediately surrounding it. The premises were clean, and had been frequently cleansed and disinfected.

Of five cases treated in this house, from the 29th of July to the 21st of August, 1878, four terminated fatally. During the entire period of the continuance of these cases, the temperature both within and without the house was high, varying from 84° F. to 94° F.

The total mortality in New Orleans from the 1st to the 25th of August was: yellow fever, 616; all causes, 1,190.

Impartial judges will admit that this was a suitable location, in the heart of the infected district, and a suitable season to condense and examine microscopically and chemically the yellow fever atmosphere.

The air of the rooms, occupied respectively by Mrs. H. as a

sleeping apartment, and in which no case of fever or other illness had occurred, and by Miss R., Mr. V., and Mr. A., was passed through ice and cold water on the 13th, 14th and 15th of August.

Almost 600,000 cc, were passed through ice and melting ice and cold water in each room. It is worthy of note that two deaths had occurred in the room occupied by Miss R. The air was subjected to this treatment both at night and during the day.

A marked difference was observed between the water of the melted ice from the large front room of Mrs. H.'s house, and the three small side rooms of the wing of the brick house facing Thalia street. The water from the front room was perfectly transparent, while that from the yellow fever rooms presented a turbid, milky appearance, and let fall a considerable deposit.

When the water from the yellow fever rooms was subjected to microscopical examination, the following extraneous matters were observed:

1. Numerous minute particles, many of which had a vibratory motion. Under a magnifying power of 450 diameters, with Beck's best  $\frac{1}{8}$  inch objective (a superior glass of excellent defining power) these appeared as minute oval specks. Under  $\frac{1}{18}$  of an inch (1050 diameters) these particles were resolved into distinctly oval cells, with a central nucleus resembling in all respects the spores of delicate fungi.
2. Bacteria and delicate thread-like filaments, similar to those observed in the urine and in the blood of yellow fever.
3. Resolving minute animalculæ and spores with active rotary movement.
4. Minute particles which could not be resolved into distinct structures by the highest powers. When magnified 1050 diameters these resembled mere specks of matter, many of which had an active vibratory motion.
5. Epithelial cells.
6. Particles of dust, evidently inorganic in their nature.
7. Oil globules.

As the patients were well rubbed with olive oil, the oil globules may have in fact been derived from these sources; but as oil increases in the blood and in certain organs, as the liver, heart, kidneys, during the progress of yellow fever, I was disposed to refer a portion of the oil globules to the diseased bodies. It is possible that oil might be exhaled from the pulmonary surface in small quantities during the progress of the disease.

8. Hairs and particles of cotton and sheep wool from the clothing and bedding of the patients, with numerous adherent spores.

When the liquid from the yellow fever room was evaporated, a distinct deposit was left on the watch glasses, and upon glass slides, which, in addition to the various organic substances specified, contained numerous stellate and acicular and prismatic crystals and granular particles.

The crystals appear to be those of the chloride and carbonate of ammonia.

Reaction of water slightly alkaline.

The presence of organic matter was still further shown by the usual chemical tests, as charring by heat, blackening by sulphuric acid, and decoloration of the solution of the permanganate of potash.

When glass slides were moistened with ice-cold water and held so as to receive the breath of yellow fever patients in respiration, the microscopical examination yielded results similar to those recorded above.

After the most minute examination of the individual specimens from the different rooms in Mr. Harrison's house, not only immediately after the experiments, but also during various periods, embracing nearly six months, I discovered two forms which could be referred to such microscopical plants, as the chlorococcus, vulgare, protococcus viridis, palmella cruenta, coccochloris brebidenii, and other confervoideæ or unicellular algæ, capable of producing chlorophyl.

Certain granular cells observed in malarial fever in the blood, resemble most nearly the testing spores of *bulkochætes intermedia*, and the granular cells of *palmella cruenta*; but for such cells to be observed in the yellow fever atmosphere in the brick house, 363 Magazine street, in fact it would be difficult to conceive how the algæ of any description could thrive and multiply in this dry and well paved-situation.

The forms were referable to those most nearly connected with putrefaction and fermentation, as the bacteria *titulæ* and micrococcus, and penicillus, and cryptococci.

Rutzing includes his genera *cyptococcus alvina*, and *sphærotilus*, amongst the families of algæ, but they appear to be the conidia (reproduction cells, stylophores, and spermatia) of the mycelia of mildew fungi.

*The absence of any of the known forms of the algæ, in the air of yellow fever, collected in this locality, which is as free from any source of swamp malaria as the best drained and paved portions of the city of New Orleans, is important in that this class of plants is thus excluded from the consideration of the questions relating to the origin or causation of yellow fever.*

In figs. 46-51 we have representatives of the microscopical objects observed in the air of this brick house.

Figure 46, Microscopical objects in urine of Miss Claudia Harrison, 363 Magazine St., August 10, 1878. 420 diameters.

Figure 47, Microscopical objects passed through ice and melting ice, ice water, in room of Joseph Oliver, 363 Magazine street, Aug., 1878. 520 diameters.

Figure 48, Crystalline bodies and sporules, from evaporated water in room of Joseph Oliver, Aug. 1878. 520 diameters.

Figure 49, Microscopical objects in air of room of Miss Rhodes, 363 Magazine street, Aug. 1878. 520 diameters.

Figure 50, Microscopical objects from air of room of E. Vonderberg, 363 Magazine street. 520 diameters, August 1878.

Figure 51, Crystalline bodies from evaporated water, from room of Miss Rhodes, 363 Magazine street. 520 diameters.

EXPERIMENTS ON LIVING ANIMALS WITH THE WATER THROUGH  
WHICH THE YELLOW FEVER ATMOSPHERE HAD  
BEEN PASSED IN THE BRICK RESIDENCE  
363. MAGAZINE STREET.

The liquid obtained by passing the air of the rooms in which the yellow fever patients lay, through ice, ice cold water, was conveyed immediately to my laboratory, and injected subcutaneously into eleven rabbits and two pigeons.

In several of the rabbits the water was injected directly into the blood, through the large vessels of the ears.

In the pigeons the liquid was injected into the pectoral muscle.

No rabbit was destroyed by these procedures, although abscesses formed on several places in different animals, in the neighborhood of the points of injection, and in such instances the animals manifested febrile phenomena. A pregnant female rabbit gave birth to four living rabbits several days after the experiments; the mother appeared to have no milk, and although we attempted to rear the young ones by artificial means

Microscopical objects in air during the yellow fever epidemic, New Orleans, 1878.

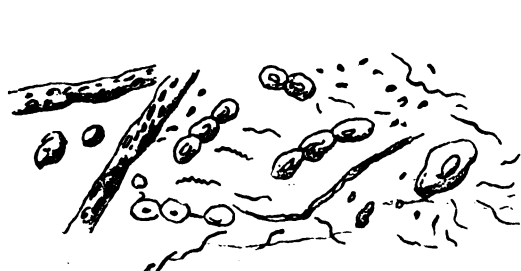


FIGURE 46.

Microscopical objects in urine of Miss Claudia Harrison, 363 Magazine St., Aug. 10, 1878. 420 diameters.



FIGURE 47.

Microscopical objects in air passed through ice in room of Joseph Oliver, 333 Magazine St., Aug., 1878. 520 diameters.

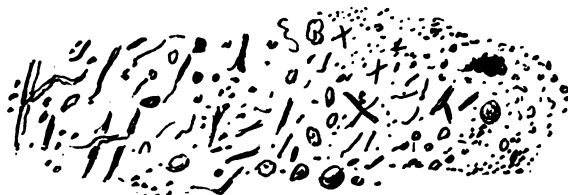


FIGURE 48.

Crystalline bodies and sporules from evaporated water in room of Joseph Oliver, Aug., 1878. 520 diameters.

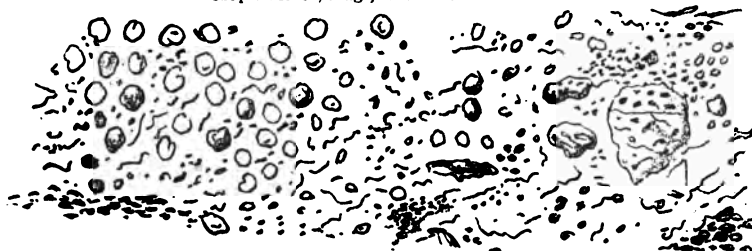


FIGURE 49.

Microscopical objects in air of room of Miss Rhodes, 363 Magazine St., August, 1878. 520 diameters.



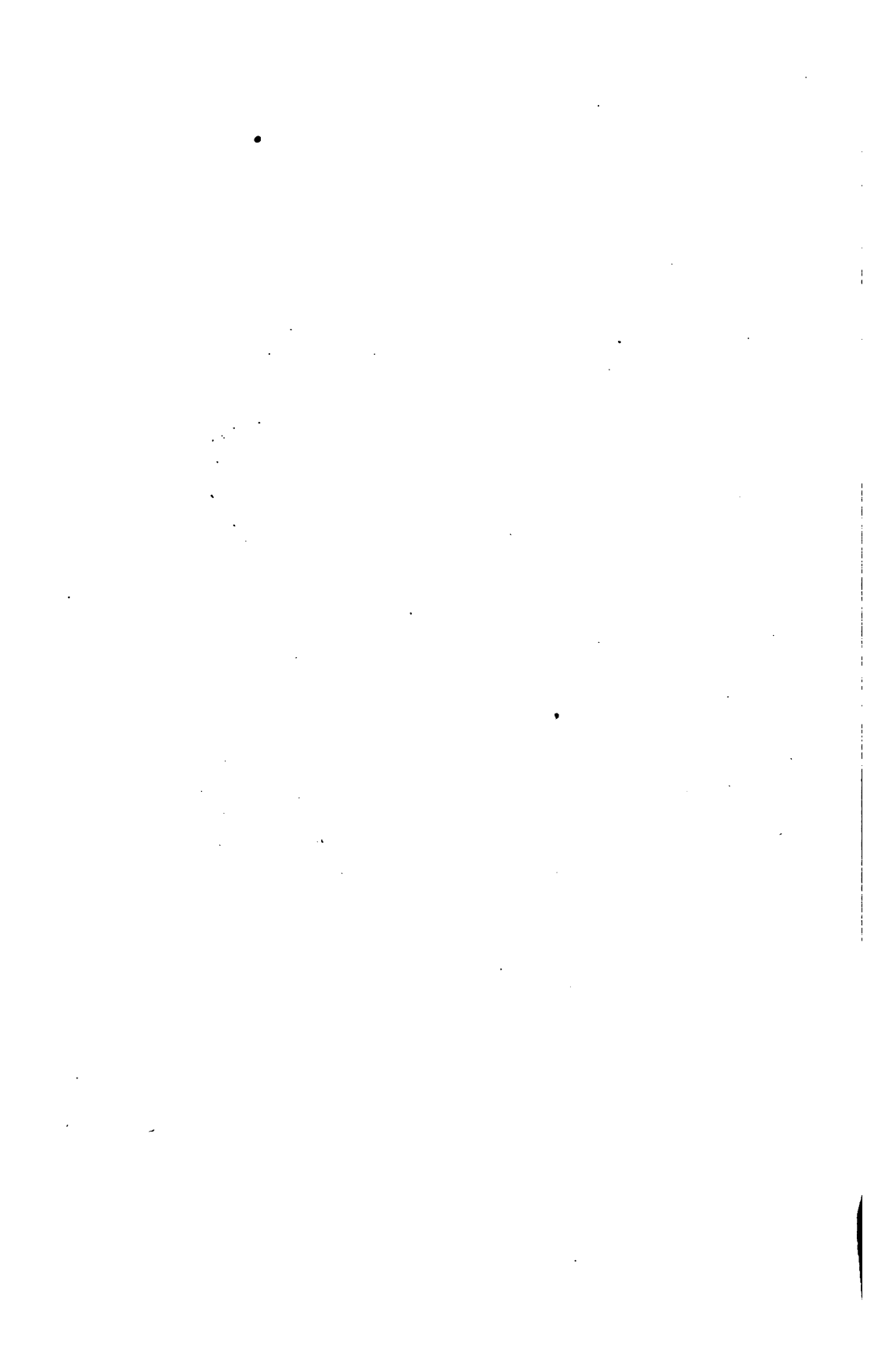
FIGURE 50.

Microscopical objects from air of room of F. Vonderberg, 363 Magazine St. 520 diameters.



FIGURE 51.

Crystalline bodies from evaporated water from room of Miss Rhodes, 363 Magazine St. 520 diameters.



they perished; the mother however survived, and afterwards gave birth to thirteen rabbits, seven at one time and six at another.

One of the pigeons was killed by a cock in the yard, about ten days after the injection of the *yellow fever water* into the left pectoral muscle.

Upon dissection, I found the left side to be atrophied in a state of acute fatty degeneration. Upon microscopical examination, I found that some of the fibres of the blankets covering the yellow fever patient had been injected along with the water into the pectoral muscle.

Two views may be taken as to the effects produced upon this bird: first the fibre of the blanket acted as a local irritant, and induced fatty degeneration and atrophy of the muscular tissue; second, the granular matter and spores of the yellow fever atmosphere induced chemical changes in the muscular structures which were converted into oil.

The latter supposition is at least worthy of consideration, as the yellow fever poison induces rapid fatty degeneration of the heart, liver and kidneys. It is also worthy of note in this connection, that the granular matter possessed active motion, as well as the sporules of the yellow fever atmosphere are found in greater abundance adhering to the fibres of cotton and wool condensed in the water.

The other pigeon was killed at the end of two weeks, and found to be healthy.

SECOND GROUP OF CASES, 44 AND 46 SOUTH VILLERE STREET, AND  
47 ROBINSON STREET, NEW ORLEANS, 1878.

Low situation—mud street, with foul ill-cleaned gutters, reeking with filth—foul drain running through yard.

Nine cases of yellow fever occurred in these three houses between July 31st and August 15th. Of number two died.

The air of the rooms in which the patients suffered with yellow fever, also that obtained from the neighborhood of a foul stinking gutter in the yard of 46 Villere street, which also acted as a surface drain to the surrounding houses, was also subjected to the same treatment, as in the residence 363 Magazine street.

400,000 cubic centimeters of air in each of these sick rooms, containing four cases, were passed through crushed ice and ice-cold water during the day and also at midnight.

600,000 cubic centimeters of air were at midnight treated in this same manner, the bellows being held and worked over the foul drain in the yard.

Total amount of air thus examined at the locality, 1,800,000 cubic centimeters.

The air from the sick room presented the same elements as were observed in the preceding experiments on Magazine street, with the addition of several hundred cells, which evidently belong to the plants resembling the chlorococcum, vulgare, protococcus, viridis and palmella cruenta.

The true characteristics of these elements were fully shown by examination of the water, at various periods extending over five months, during which time the cells increased considerably in size. The most numerous elements were, as in the case in the water obtained from the sick rooms at 363 Magazine street, minute spores, minute thread-like bodies, bacteria, and minute granules, which could not be resolved by the highest powers into any distinct animal or vegetable structure, epithelial cells, oil globules, several parasites from the skin, and fibres of wool and cotton, and particles of dust were also observed under the microscope. The crystalline bodies also appeared when the liquid was slowly evaporated.

The water through which the air from the foul gutter was passed contained chafed cells of the plants resembling the algæ, as the resting spores of bulbocharte intermedia, chlorococcum vulgare, protococcus viridis, and palmella cruenta.

Bacteria, minute spores, and minute particles were also abundant.

When the waters obtained in the manner stated were injected subcutaneously in living animals, the results were similar to those detailed.

THIRD SERIES OF CASES—EXAMINATION OF AIR OF RESIDENCE 495  
ST. CHARLES STREET, CORNER OF ST. ANDREWS,  
NEW ORLEANS, 1878.

House surrounded by low, ill-drained dirty streets, and foul stinking gutters—malarial fever not infrequent in this locality.

Nine cases of yellow fever occurred in the houses 495 St. Charles street, at which the author and his family resided during the yellow fever epidemic of 1878; of this number no one died—all recovered.

Four cases occurred and recovered from September 16th to October 4th, and five cases subsequently.

The experiments upon the atmosphere of the house were made before the occurrence of the first attack September 16, and during the progress of the first four cases of yellow fever.

About 1,900,000 cubic centimeters of air of the lower rooms (only occupied during the day), and of the sleeping apartments, both before and after the prevalence of the fever, were subjected to the influence of artificial cold. As in all the preceding and subsequent experiments, the purest ice was employed.

Upon careful examination and chemical analysis of the two varieties of ice used at New Orleans, the Boston and the Louisiana ice, the latter being manufactured by artificial cold in the city, from distilled water, I found them to be free from organic impurities; and whilst the artificially prepared ice was entirely free from all saline matters, the Northern or Boston ice contained only traces of the chlorides and sulphates.

The experiments conducted at 495 St. Charles street yielded results essentially similar to those obtained at 363 Magazine street and 46 South Villeré street.

Thus the water after the passage of the air of the lower rooms, which were used only in sitting and reading apartments, resembled a clear and transparent appearance, with only a few sporules, that obtained from the rooms during the prevalence of the fever presented a milky and turbid appearance, contained numerous spores of various sizes, the most minute requiring the highest powers for their detection, also minute particles of vibrating matter, which could not be resolved into specific shapes under the highest powers. As in the previous examinations, the particles of cotton wool and of wool originally floating in the air, and cold water, contained vast numbers of these spores and minute particles, adhering to the fibres and entangled in the meshes.

It is but just to conceive that the clothing and bedding of the patient became more or less permeated by the minute particles and spores.

*We have thus a practical demonstration of the possibility of the contamination of the clothing of patients by matter in a minute state of subdivision, a portion of which, as the sporules, are capable of reproduction.*

After standing some time I observed a few cells, chlorococcum,

protococcus, and the resting spores of several of the unicellular algæ.

This locality, like that at 46 South Villeré, may be regarded as favorable to the development of the algæ, as the gutters are wide, deep, and simply excavated in the earth at the sides of the streets. Both St. Charles and St. Andrew streets were at this time and in this locality unpaved, and during periods of continuous rains the streets became almost a quagmire of tenacious mud. In these deep mud gutters numerous algæ flourish, and also numerous insects are developed, and the Congo snake (*Amphiuma* Meers) find a congenial home, and attains a large size.

FOURTH GROUP OF CASES IN THE HOUSE AT THE CORNER OF MILAN  
AND CARONDELET STREETS, NEW ORLEANS, 1887.

Malarious locality and exposed to the direct winds of the low grounds and swamp.

Some cases of yellow fever occurred in this house between September 22 and October 5, of which one case terminated fatally.

The house in which the family dwelt was the only one on the entire square, and in fact there were no other houses between it and the swamp towards the lake. The location was low and subject to overflow in high water. The rooms were small and ill ventilated. I caused the disposal of the patients through the various rooms.

The family consisted of six—father, mother and four children, all of whom were attacked—the cases dating as follows: Sept. 20, Sept. 22, Sept. 26, Sept. 29, Oct. 4, Oct. 5; one death occurred in the six cases.

The air of the various rooms in which the sick lay was subject to examination in the manner previously described, 1,100,000 cubic centimeters being thus operated on.

Upon microscopical examination, in addition to the minute particles of matter possessing vibratory motions, and minute sporules, bacteria and animalculæ, the water contained numerous vegetable cells with nucleus and nucleolus about the size of the colorless corpuscles of the blood and of a distinct grass color. These cells resembled most nearly those of the *chlorococcum vulgare*, and of the *protococcus viridis*, and of the *coccochloris brebinonii*, and resting spores of *bulbocharta*



Microscopical objects in air during the yellow fever epidemic, New Orleans, 1878.

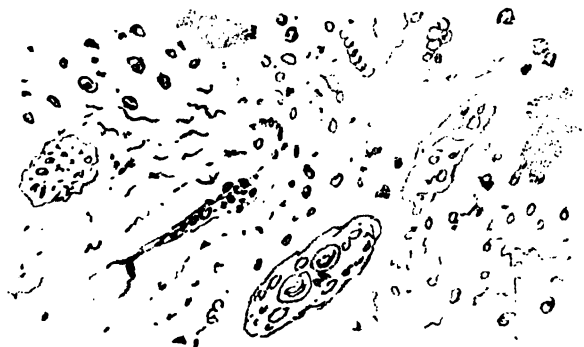


FIGURE 52.

Microscopical objects in air of yellow fever room, 405 St. Charles St., 1878. 420 diameters, 1-5 inch Beck

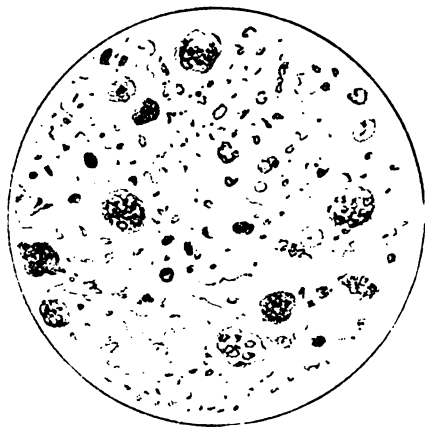


FIGURE 53.

Microscopical objects in air of yellow fever room, 44 South Villeré St., New Orleans, 1878. 1-5 inch Beck.



FIGURE 54.

Microscopical objects in air of yellow fever room, 44 South Villeré St., New Orleans, 1878. 1-5 inch Beck.



FIGURE 55.

Microscopical objects in air of yard, 47 South Villeré St., 1878. 1-5 inch Beck.

intermedia. We also observed colored granules and colored granular cells of a dark brown and reddish brown color, similar in all respects to the dark granular bodies and dark granular cells observed in the blood of malarial fever. These were probably a species of palmellæ resembling the cells of *palmella cruenta*.

Iodine imparted a distinct blue color to many of these cells.

Upon evaporation prismatic crystals formed, which were rendered deep blue by a solution of the sulphate of copper.

The water thus obtained from the sick room of the small house corner of Milan and Carondelet streets was injected into five rabbits subcutaneously. In some instances it produced low irritation and abscesses attended with febrile agents, but no rabbit was destroyed by the liquid. The results were similar to those obtained by the injection of the water obtained in the residence 363 Magazine street, although the liquid obtained at the former locality contained organized elements, and more especially algæ, which were not present in the latter.

The most marked change observed in the liquid obtained in the dwelling at the corner of Milan and Carondelet streets, by the lapse of some three and a half months, was the growth of the unicellular algæ and the formation of filaments by the fungi.

The appearances presented by the micro-organism in the second, third and fourth groups of cases just described, are represented in figures 52, 53, 54 and 55.

Figure 52, Microscopical objects in air of yellow fever room, 495 St. Charles street, 1878. 420 diameters,  $\frac{1}{4}$  inch Beck.

Figure 53, Microscopical objects in air of yellow fever room, 44 S. Villeré street, New Orleans, 1878.  $\frac{1}{8}$  inch Beck's objective.

Figure 54, Microscopical objects in air of yellow fever room, 44 S. Villeré street, New Orleans, 1878.  $\frac{1}{8}$  inch Beck's.

Figure 55, Microscopical objects in air of yard 47 S. Villeré street, 1878.  $\frac{1}{8}$  inch Beck's.

GENERAL CONCLUSIONS AS TO THE NATURE OF YELLOW FEVER  
CONTINUED.

Gentlemen, we will now return to the systematic presentation of the results of our original investigations as to the symptoms and pathology of yellow fever.

V. While many of the most striking phenomena of yellow fever, as chills and fever and collapse, must necessarily be at-

tended by disordered vascular innervation, at the same time we must look to the blood as the seat of the operations of the fever poison; and as the nutrition of every organ and tissue depends upon the proper contribution of this fluid, its alterations must affect the entire organism, and the true commencement of yellow fever is in the alteration of the relations between the blood and tissues.

The nervous system, both cerebro-spinal and sympathetic, suffers at first in common with the entire system; but as the most important offices are performed by the nervous system, which relates the mind to the various parts of the body and to the exterior world, and also regulates the actions of the respiratory and circulatory system, and co-ordinates the actions of the component members of the system in all the phenomena which succeed the *invasion of fever, the blood and nervous system become joint factors.*

VI. During the active stages of yellow fever profound changes take place in the organs, tissues, especially in the kidneys, heart and liver; oil and granular albuminoid or fibroid matter transude through the capillaries, and fill up the cells and excretory ducts and arrest the function of certain organs.

The liver of yellow fever does not present the soft friable condition characteristic of true fatty degeneration.

The jaundice resulting from the suppression or alteration of the excretory functions of the liver would appear to be due to the same causes which induce the suppression of urine; as follows: To the deposits of oil and fibrinous or albuminous matter in the excretory structures of the kidney and liver. We do not mean to say that in the case of the liver its secretion ceases, or is even in many cases diminished; on the contrary, it may even be increased, especially in the stage of active febrile excitement; but from the causes indicated obstruction takes place in the biliary tubes, as there is rapid absorption of the bile directly into the blood-vessel system, and in this manner the delivery of the bile into the intestinal canal is impaired and sometimes arrested.

The heart in yellow fever appears to be as fully permeated with oil as the liver. In the latter organ, however, a large amount of the oil is enclosed within the cells, and in the former, and in addition to the deposits of oil, there is also a granular degeneration of the muscular structures.

VII. While yellow fever is characterized in common with some other diseased states, by an irritation of the gastric mucous membrane, the peculiar nature of the vomited matters does not rest entirely upon the congestion and irritation of the mucous membrane of the stomach, but is influenced to a greater or less extent by the changes of the blood, liver, kidneys and nervous system.

The vomiting of yellow fever may to a certain extent be regarded as salutary, and as an effort for the elimination of certain excrementitious materials from the blood. In some cases the first effort of the black vomit may seem to be salutary; the tongue improves in appearance, the febrile heat abates, and if it were not for other profound changes in the blood, liver and kidneys, lying back as it were of this almost universally fatal symptom, beneficial results of the most important character might flow from the relief afforded by the removal of a certain amount of excrementitious matter, as urea, and ammonia, and bile from the blood.

Black vomit is to a certain extent an *excrementitious product*, containing *urea* and *carbonate of ammonia*, in addition to altered blood corpuscles, epithelial cells, broken capillaries, mucus, various matters received into the stomach, as food and medicine, serous exudations, acetates, lactates, phosphates and chlorides.

We have demonstrated by numerous chemical analyses the following changes in the blood of yellow fever:

1. Marked diminution of fibroids.
2. Increase of fatty matter.
3. Accumulation of biliary and urinary constituents.

Black vomit is consequent upon the first and third conditions of the blood in yellow fever.

Black vomit in yellow fever is due to the following causes :

1. To the direct irritation and structural alteration of the gastric mucous membrane by the yellow fever poison.

The active agent which is possibly first received into the blood, and acts in this manner or through the medium upon the gastric mucous membrane, for we find contemporaneous changes taking place in the heart, liver and kidneys; and these changes would most probably *succeed* the gastric irritation if the poison was received in food or drink primarily by the stomach.

2. To the structural alterations of the blood, and especially to the marked diminution of the fibrinous element, which appears to sink to a lower figure than in any other disease.

3. To the suppression of the action of the kidneys, and the retention in the blood of urea, and other excrementitious products, and the elimination of urea as carbonate of ammonia by the gastro-intestinal mucous membrane.

4. To the direct irritant of the ammonia and excrementitious materials, eliminated vicariously upon the mucous membrane of the stomach and intestines.

5. To the irritant and nauseating effects of the bile in the blood. The bile retained in the blood, without doubt, produces its characteristic effects upon the nerves supplying the stomach, inducing nausea and vomiting.

6. To the degeneration of the cells of the gastric mucous membrane, attended with or characterized by the deposits of granular, albuminoid or fibroid matter, and oil globules in the secretory cells and in the walls of the smaller blood vessels and capillaries.

7. To the capillary congestion of the greater intestinal membrane, similar in all respects to intense capillary congestion which characterizes all the tissues in this disease, in consequence of the physical and chemical alterations of the blood, and of the morbid action of the poison and its products upon the vaso-motor system of nerves.

Black vomit, therefore, is an *effect* or result of *preceding* changes or actions, and is not a *cause*; it is an error therefore to search by chemical reagents or by the microscope for the *cause* of this disease solely in one of its *products*.

8. The chief causes of death in yellow fever appear to be:

*a.* The direct action of the febrile poison upon the blood and nervous system, depressing and deranging the actions of the one, and rendering the other unfit for the proper nutrition of the tissues.

*b.* The suppression or alteration of the functions of certain organs, as the kidney and liver, and the retention in the blood of the matter normally eliminated by these organs.

*c.* Structural alterations in the heart, and consequently loss of power in the organ.

*d.* Profuse hæmorrhages from the stomach and bowels.

9. Yellow fever differs essentially in its symptoms and pathology, from malarial fever. In the latter, the constituent of the blood, which appears to suffer to the greatest and most es-

sential degree, is the colored blood corpuscle; in the former, the constituent of the blood which suffers to the greatest extent is the albumen.

The changes of temperature in yellow fever follow a definite course and are never repeated in uncomplicated cases; in malarial fever, on the other hand, they recur at regular intervals, and may be indefinitely reproduced.

As a general rule, yellow fever attacks but once; malarial fever produces no exemption, but on the contrary establishes a disposition to frequent occurrence.

Convalescence from yellow fever is comparatively rapid, and the constitution of the blood is rapidly restored; in malarial fever the changes of the blood and organs, especially of the liver and spleen, may be profound and long continued.

The liver in yellow fever presents various shades of yellow and contains numerous oil globules. The liver of malarial fever is of a dark color, most generally slate upon the exterior, and bronze within, and is loaded with dark pigment granules. The spleen is comparatively unaffected in yellow fever, while this organ is enlarged and softened in malarial fever. The heart and kidneys are softened and infiltrated with oil and granular albuminoid matter in yellow fever, while they are comparatively unaffected in malarial fever; the urine is almost always albuminous and contains bile in yellow fever, while in malarial fever albumen and casts, are almost always absent and the urine presents morbid periodic changes corresponding with those of the paroxysms.

X. Yellow fever is a self-limited disease, occurring, as a general rule, but once in a lifetime. The constitution of the blood, and even of the textures of the body, is altered, the most important organs, as the heart, kidneys, and liver, as well as the most important nutritive fluids, are profoundly impressed. These changes of the blood, heart, kidneys, and liver, as well as of the nervous system, may be compared to the profound changes induced in the blood and organs, and especially in the integument, by small-pox. If this view is correct we cannot by drugs arrest or cure yellow fever any more than we can arrest or cure small-pox, measles or scarlet fever. If drugs accomplish the effect of promoting the free and regular action of those emunctories through which the poison and the products of its action are eliminated, and if further they tend to preserve the integrity

of the blood, and to sustain the actions of the circulatory and nervous systems, they will without doubt achieve much good; and perhaps all that we are justified in looking for in present state of our knowledge. By judicious treatment, by proper ventilation, diet and rest, we place the patient in that condition which is best adapted to the successful elimination of the poison and its products; but we do not arrest or cure the disease, as we certainly may do in paroxysmal malarial fever, by the proper administration of quinine.

XI. *Changes of the Urine in Yellow Fever.*

The reaction of the urine of yellow fever is acid. Even in the gravest cases, attended with suppression of the urinary excretion, jaundice and *alkaline black vomit*, the urine, however small the quantity excreted, maintains an acid reaction.

As a general rule, the specific gravity of the urine in yellow fever does not vary from that of health, and ranges from 1009 to 1028. In those specimens which give the highest specific gravity, the increase in density was clearly referable to the increase of *albumen*; for when this constituent was coagulated by heat, and removed by filtration, the urine was of low specific gravity.

In some of the gravest cases the specific gravity of the urine was only 1010, and presented a yellow color, and was turbid from the presence of cells and casts of the excretory tubes of the kidney and granular and fibrinous matters and colorless corpuscles.

During the early stages of the disease the urine is normal in color, clearness and quantity; as the disease proceeds the urine becomes of a deep yellow color, from the admixture of bile, and at this stage, after the full establishment of the febrile excitement, about the third, fourth or fifth day, becomes turbid from the presence of the excretory cells, tube casts and yellow granular albuminoid or fibroid matters.

The color may deepen to orange red as the disease progresses; or if the case terminates fatally from the diminution and suppression of the urinary excretion, it maintains a yellow color, sometimes presenting an oily appearance and motion, and consists of but little else than albumen, bile, excretory cells and casts of the tubuli uriniferi, in a weak solution of the urinary constituents.

In some cases of suppression, although the *urea* is greatly diminished in the small amount of urine excreted, it is rarely, if

ever, entirely absent. If the case ends in convalescence, the urine is copious and the color progressively increases in depth, and may even appear black when viewed *en masse*.

As far as my investigations extend, albumen is an invariable constituent of the urine in grave cases of yellow fever, and may appear as early as the first day of the disease, but most generally it appears upon the second, third or fourth day. In yellow fever albumen may be found in the urine as the only abnormal element, with or without other blood element, in company of abundant deposits of leucon, with or without deposits of purpurine or other coloring matters in excess; in connection with biliary coloring matters, and in connection with apyrexial states.

The constituents of bile are almost universally presented in the urine, even in those cases which progress favorably and end in convalescence.

When there is no suppression of the urinary excretion, the urea is increased above the standard of health during the active stages of the disease, and during the period of exhaustion or calm. I have obtained upon analysis as much as 1,500 grains of urea during twenty-four hours in a case of yellow fever, and that, too, when no nourishment was taken. Of all known diseases, yellow fever is characterized by the earliest and most uniform appearance of albumen and casts in the urine, and by the most marked tendency to urinary suppression; when, therefore, this occurs, owing to the chemical changes exhibited by the febrile poison, the blood is rapidly charged with urea, and coma and uremic convulsions are the result.

In yellow fever the presence of albumen in the urine is attended by desquamation, fatty degeneration and disintegration of the excretory cells of the tubuli uriniferi. The granular casts so common in yellow fever are composed of excretory cells, oil globules, and granular fatty and albuminoid granular matter, in some cases intimately mixed with urate of ammonia.

Those who have failed to detect albumen and casts at some period of grave cases of yellow fever, are either ignorant of the ordinary chemical tests and microscopical appearances, or have been careless and superficial in their so-called researches and observations.

When the kidneys are not seriously impaired by structural alterations, the amount of urea excreted both during the stage of

active febrile excitement and that of calm or depression, is at least five times more abundant than the amount of this constituent which would be excreted by a patient in health, or even in Bright's disease similarly situated, lying perfectly quiet in bed, and taking no nourishment. The fact illustrates the absurdity of comparing the effects of urinary suppression in yellow fever with the more tardy results in chronic Bright's disease.

In yellow fever urinary suppression causes the retention of not only the greatly increased amount of urea, but also of the various products of the action of the poison, as sulphuric acid, phosphoric acid, extractive coloring and biliary matters.

The fever of the *first stage* of yellow fever, like *fever in general*, however casual, consists essentially in elevation of temperature, arising from chemical changes in the blood and tissues, and is attended with changes in the physical and chemical constituents of the blood and aberrated nervous action. As long as the skin, *kidneys* and *lungs* and gastro-intestinal canal perform their functions, this stage is characterized as in other fevers, by an increase in the amount of the solids excreted. But this increased elimination of the products of chemical change is not in yellow fever a constant concomitant of the increased temperature, because, in virtue of the lesions of certain organs, as the kidneys and skin, the constituents of the urine and bile accumulate and are agents in the production of aberrated nervous and muscular action, and even of death itself.

The appearance of the urinary deposits of yellow fever are represented in figures Nos. 56, 57 and 58.

These figures represent observations extending from 1870 to 1882, a period of twelve years.

Figure 56, granular casts in urine of yellow fever, 1870.

Figure 57, granular casts in urine of yellow fever, 1876.

Figure 58, granular casts in urine of yellow fever, 1880.

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**Graduating Without Commencement Exercises.**—Belle-vue Hospital Medical College finished its term and granted diplomas to one hundred and thirteen students without any formal exercises. The money usually spent in hall rent, music, flowers, and oratory was saved, we presume, for more practical ends. This is a utilitarian age.

Deposits of urinary casts in yellow fever.

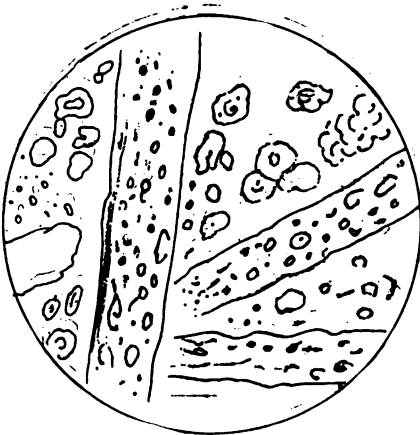


FIGURE 56.  
Granular casts in urine of yellow fever, 1870.  
1.5 objective.

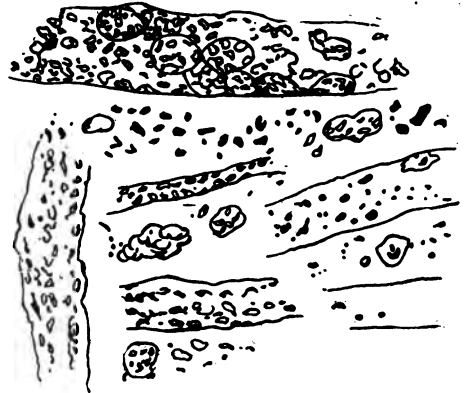


FIGURE 57.  
Granular casts in urine of yellow fever—Edward  
Griffin, 1876.

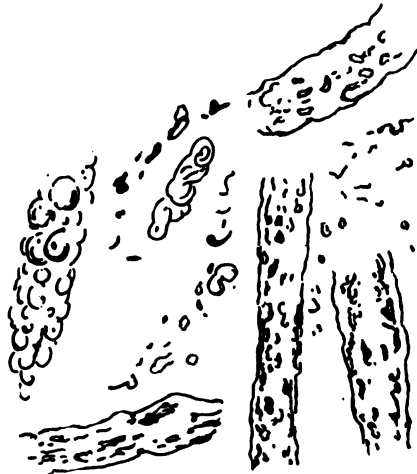


FIGURE 58.  
Granular casts in urine of yellow fever of James  
Kenney, Bark Excelsior, July 10, 1880.



EASY METHODS OF ASEPTIZING SURGICAL DRESSINGS AND APPLIANCES, AND RENDERING WOUNDS ASEPTIC. By ROBERT REYBURN, A. M. M. D., Professor of Clinical Surgery and Physiology Medical Department Howard University, Washington, D. C.

If one should be asked by a student of medicine, What do we mean by Aseptic Surgery? the best answer that could be given in my opinion would be to say, in the words of another, "It is the Gospel of Cleanliness." But when we use the term "Cleanliness" we mean something very different from what is implied in the ordinary usage of the word. We mean cleanliness carried to a microscopic degree of perfection, and far surpassing the ordinary ablutions by soap and water. What we endeavor to do at the present time, before any surgical operation, is to so thoroughly cleanse the patient, the surgeons, assistants, nurses, surgical appliances and dressings, (of course including the hospital and all its surroundings) so that no germs of poisonous bacteria can infect the wound, and cause suppurating fever, and perhaps the death of the patient operated on. Modern surgery starts out with the assumption that in an operation aseptically performed, upon an aseptic patient, and by an aseptic operator, there should be neither suppuration nor fever following any surgical operation. This of course is the ideal of surgery, which cannot be always realized, but nevertheless it is the goal towards which we should aim, and which we should always endeavor to attain. How rapidly we are pressing towards this blissful consummation of our hopes, can be seen from the marvellous results now being accomplished in the surgery of the present time. Only last week in the *Journal of the American Medical Association* (March 18. 1893), Dr. F. H. Martin reports thirty-seven cases of laparotomy with not a single death. The writer had the sad experience of studying the cases, and witnessing the results of the surgery of many of the great battles of our late civil war, and feels strongly the conviction that if the surgeons on both sides of the contest had then known as thoroughly as we do now the laws governing aseptic surgery, we could have prevented the untimely death of perhaps one-third of the number who perished in that dreadful struggle.

What does such a treatment mean? It means that we might have saved the lives of one hundred thousand men, How vividly

do I remember how we used to slop all our gun-shot wounds indiscriminately with the water dressing. We did the best we knew, but I hope Heaven will forgive us the sins of ignorance and stupidity that we committed in our management of those cases. But the objection may be urged, with some show of reason, that this ideal of surgery heretofore spoken of is practically impossible. These poisonous bacteria are floating in the air all around us; they are in every breath we draw, in much of the water and many of the articles of food we consume, and, indeed, exist always in the alimentary canal and all parts of the body exposed to contact with the air. But, on the other hand, it must be remembered that there are bacteria and bacteria. There are some species of bacteria which, when planted upon a wound, will bring forth as the results of the poisonous materials formed by them, the formation of pus with the resulting septic fever, just as certainly as the acorn when planted and nourished will develop the sturdy oak. There are other species which when they come in contact with a wound are practically harmless. Of course we cannot, with the naked eye, distinguish between the poisonous bacteria and the harmless ones, and hence our only safe plan is to, as far as possible, exclude them altogether from the wound whether made by violence or those made during surgical operations. How then can this be done? The first point to be observed is to use as little water or watery antiseptic solutions as possible in contact with the wounds made during surgical operations, and make them as dry as possible. The reason for this course is that by so doing we remove one of the essential conditions necessary for the development of bacteria, and thus prevent their growth. The surgeons of the present day are rapidly losing faith in the ordinary solutions used as antiseptics, when applied to wounds. Solutions of carbolic acid as usually applied and solutions of boric acid also have been proved to be very weak antiseptics. As we lost our faith in one antiseptic after another, we pinned our faith on bichloride of mercury as our sheet anchor. But the iconoclasts are busy in tearing down the idols we have worshipped in medicine, and have now not even left us this one. Recent investigations carried on at Johns Hopkins University (and published in *Johns Hopkins Hospital Bulletin* of April, 1891, p. 50), and at the University of Michigan (published in the *Philadelphia Medical News* of October 1st and 8th, 1892), have shown that solutions

of mercuric chloride when used as germicides are often inert, and still oftener actually injurious to the tissues, when applied during surgical operation.

The great surgeon Lawson Tait, who has now nearly completed his third thousand of operations upon the abdomen, and whose success is probably unparalleled in the annals of surgery, believes in no antiseptic except recently boiled water; and the consensus of opinion of the masters in surgery in our day is to the same conclusion. The second point to be observed is, that every instrument and surgical appliance must be sterilized shortly before the operation, either by boiling in water containing one per cent. of carbonate of soda (commonly called washing soda) half an ounce to three pints of water, or by being exposed to a dry heat above the temperature of boiling water (from 230° to 240° Fahrenheit) for one-half hour before the operation.

This can be done in the various patterns of steam and dry sterilizers which are now on the market, and can be procured at a moderate cost. But my principal object in writing this article is to call attention to the fact, that aseptic surgery can be practically carried out without the purchase of any apparatus whatever. A tin wash boiler, which can be found in the humblest home, is just as good for sterilizing surgical instruments as Arnold's, or other of the steam sterilizers now in use. A still more simple sterilizer for small instruments is the ordinary oblong tin baking pan so familiar to our eyes in our youthful days. This pan when filled with boiling solution of carbonate of soda, may not look quite so ornamental as a porcelain evaporating dish, or a forty dollar copper sterilizer, but it will do just as good work. As before mentioned, to the above must be added absolute cleanliness of the operator, assistants, nurses, and in fact of all who come in contact with the patient. It is scarcely necessary here to say that the part operated on, and the arms of the operator, assistants and nurses, must be thoroughly scrubbed first with water, and then with solution of 1 to 2000 mercuric chloride, just before the operation.

One incidental and very great advantage in operating in private houses (providing they are clean and in good sanitary condition), is that the germs of poisonous bacteria are for obvious reasons not so liable to be found there, as in the air of crowded hospitals. In regard to sterilization by the dry method, the only thing that

is absolutely necessary to be purchased is a good thermometer, graduated to a temperature of 300° F. Of course it is convenient, and perhaps more surgical-looking to buy a dry sterilizing apparatus, but it is by no means essential. The oven of a kitchen range or that of the ordinary cooking stove will answer every purpose. Take a common pasteboard box, such as letter envelopes are packed in, place in the bottom of it a layer of aseptic cotton about two inches in thickness, on this lay your instruments and surgical appliances, (bandages, etc.,) with your thermometer, and your apparatus will then be complete. Place in the oven and expose to a temperature of 230° to 240° F. This temperature can be easily regulated by a little practice, and is lower than the temperature required for ordinary baking purposes, which is said to be 270° Fahrenheit. Finally, to my readers, allow me to add the following maxims, as the results of my experience: 1. Never use a drainage tube in a wound unless you are absolutely certain you cannot get union by first intention. 2. If you have an amputation to perform, ligate every vessel requiring it with aseptic cat-gut, silkworm gut or silk; cut the ligatures off close to the vessels and leave them in the stump, close the flaps with similar sutures, and use no adhesive plasters in contact with the flaps of the stump. After you have stitched up the flaps, dust their surfaces with iodoform, boric acid, or subnitrate of bismuth. Place over this a layer of iodoform gauze, then an abundant layer of aseptic cotton, and over all this at least two layers of a well-fitting bandage. The reason why I do not use adhesive plaster in contact with the flaps of the stump, is that it cannot be properly sterilized, and is very often the means of infecting the stump.

Above all things never, no never, open a stump for ten or twelve or even fifteen days after an amputation, if the temperature of the patient is at normal point, or even a degree above. The last limb I amputated was dressed for the first time on the sixteenth day after the operation. On the other hand, if the temperature goes up to 102° or 103°, open up the stump at once, and find out the cause of the trouble. In Bichât Hospital (located in Paris, France,) I saw a number of stumps of amputations which had only received two dressings, one on the fifteenth day, and the other final dressing on the twenty-eighth day after the operation.

## Clinical Reports.

INTUSSUSCEPTION OF THE BOWELS. By WM. HENRY, M. D.,  
Harmon, Ill.

On Jan. 12, 1893, Mrs. R. M., æt. 64 years, who previous to the above date was in her usual health, on the day above mentioned did washing of clothes, it being Monday, the usual time for women to do their week's washing. All day she seemed as well as usual. After supper, having done her work, she sat down by the fire and was doing some sewing when, as she expressed it, a severe pain took her in the region of the umbilicus. All of that night she suffered, and her own language was that she thought she would not live to see the next day. On the morning of the 13th I was called. I found her in extreme pain, also vomiting; in the meantime I gave her anodynes to control pain; they were not long retained as everything came back taken into her stomach. There were stercoraceous vomiting, fæces came up from the bowels in liquid form fully digested. After three days and nights the pain began to subside; injections were tried but no fæces, nothing but the injections came back. I told the family that there was obstruction of the bowels and that I would like to have counsel; so they went to Dixon, Ill., and Dr. Owen came, and after making a careful examination, as I did previously, came to the same conclusion that I did: intussusception invagination. The obstruction seemed to be low down near or at the ileo-cæcal valve, from thence forcing everything back through the stomach. She lived about fourteen days after the onset of the difficulty. As soon as the alimentary canal became full from drink, it was thrown back. She expressed herself about the pain being of a twisting and tearing nature. There was apparently great heat—from the way she complained, internally; the extremities were cold and clammy some days previous to the dissolution: but all of the time the patient complained of heat, said that if her attendants would put her into the snow she would get better. An autopsy was not granted, as I would liked to have shown where I thought the trouble was and the condition of those parts. The causes which bring about such a condition may be various: it may be an evolution, a folding in of the intestines, a twisting upon itself impacted fæces caused by some nucleus for it to

form about, an actual tying of the viscera in a knot—all of these various means may cause the obstruction. Dr. Owen thought the only sure way would be laparotomy, but there is great danger from such an operation, of death from shock in a weakly person. I have thought since, if I had another similar case I would try by filling the bowels with air pumped into the rectum and large bowels till they were well filled. I did try massage on the surface, as I could feel a resistance in the right iliac region, where I thought the obstruction was, but could not remove it by motion or rubbing. If any of my professional brethren have had similar cases, tell of your success.

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**Swallowing a Watch.**—The freaks of lunatics are sometimes extraordinary, and one of the most remarkable which has been placed on record recently is that which Dr. Vallow has published in the current issue of a French contemporary. A man, aged 37, was confined in an asylum suffering from hallucinations, and one day, his wife having come to visit him, he was permitted to see her. When the allotted time of the interview, according to the rule of the institution, had come to an end, his wife intimated that she would have to take her departure, whereupon the patient, judging that she wanted to leave him before the time had expired, flew into a violent passion and accused her of deceiving him. To prove, however, the truth of her statements, she drew out her watch and showed him the time; but as soon as the patient saw the watch, he suddenly seized it in his hand, tore the chain from it, and, putting it into his mouth, swallowed it. The medical officer of the asylum was summoned at once, but the patient in no way appeared to have suffered from his curious freak. On examination of the stomach nothing could be felt, and it was at first believed that, after all, the watch might not have been swallowed. However, all due precautions were taken, and on the sixteenth day the watch arrived *per naturalem viam*. It was a silver watch measuring about two inches and a half in diameter, exclusive of the ring, and about half an inch in thickness.





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## The Earlier Editors of the St. Louis Medical and Surgical Journal.

### V.—DR. JOHN B. JOHNSON.

The subject of this sketch was born at Fair Haven, Mass., in 1817, and is still, in his 76th year, in the active practice of medicine in this city. After a partial collegiate education at Harvard, interrupted by the continued illness of his mother, young Johnson commenced the study of medicine at the Berkshire Medical College, Pittsfield, Mass. Here he made the junior course. The lack of facilities for anatomical studies and of clinics at Pittsfield caused him to leave the Berkshire school and to enter the medical department of Harvard University (Harvard Medical School), where he was graduated in 1840. On graduation he entered the competitive examination for the position of house-surgeon to the Massachusetts General Hospital, and was successful over many competitors.

In the spring of 1841 Dr. Johnson removed to St. Louis, where he soon found congenial companions, and where we first hear of him associated with Drs. S. G. Moses, Wm. M. McPheeters, George Johnson, C. A. Pope and Joseph Clark, in founding the first free dispensary of St. Louis. This was in 1842, and the

idea was first suggested by Mrs. V. B. Garesche, a lady noted for her charities. The Mullanphy family also contributed liberally to the fund. Rev. Dr. Eliot tendered the use of the basement of the Unitarian Church, then at the northwest corner of Fourth and Pine streets, for use as a dispensary, and the offer was gratefully accepted. In going into the enterprise, the six young physicians mutually pledged each other that they would each give one hour of each day to dispensary work for the period of five years, and would take charge of out-door cases in one of the city wards for the same period of time. The latter service was changed every six months so as to equalize the service as much as possible. This work was continued for two years after the expiration of the original compact, upon the city's establishing a public dispensary and withdrawing the aid formerly contributed to the noble charity.

Dr. Johnson, it is said, is in the habit of ascribing much of the success which he met in after life to the lessons learned in this trying practical school.

On April 1, 1843, we find Drs. Johnson, Pope, Pallen and McPheeters announced to give a series of lectures at the St. Louis Medical Institute, the lectures to continue until November 1, Pope having Anatomy and Clinical Surgery (the old original announcement has it *chemical surgery*); Pallen, Obstetrics and Diseases of Women and Children; Johnson, Theory and Practice of Medicine; and McPheeters, Materia Medica, Therapeutics and Clinical Medicine.

In the first volumes of the JOURNAL, or from 1843 to 1850, Dr. Johnson's name appears frequently as an active worker in all of the various local undertakings for the advancement of medicine, but it is first in 1850 that we find his name hoisted among the corps of editors, then consisting of Linton, McPheeters, Jno. S. Moore, and J. B. Johnson. It is difficult, from reasons heretofore noted in these sketches, to separate out from the editorial matter articles written by any particular member of the staff, and hence we are unable to give even an outline of Dr. Johnson's literary work on the JOURNAL. That he was an active participant in the editorial labors we know full well, as his long connection with it shows.

During the troublous war times Dr. Johnson was a Union man, and took an active part in all of the sanitary movements

undertaken by St. Louisans in the patriotic work of caring for the wounded and sick federal soldiers and confederate prisoners. In 1862, he was named one of the members of the Western Sanitary Commission, along with J. B. Yeatman, Carlos S. Greeley, George Partridge and the Rev. Wm. G. Eliot, two of whom (Yeatman and Greeley) along with Dr. Johnson still survive at a green old age. Dr. Johnson continued to be a member of the Commission all through the war, rendering signal services not only as a physician but as a man and citizen.

Dr. Johnson has for many years filled the chair of the Theory of the Practice of Medicine in the St. Louis Medical College, besides attending to a very large practice among the best families of St. Louis. He is still hale, hearty and active. The accompanying portrait gives an excellent idea of his present physical condition, and it will be prized by the hundreds and hundreds of subscribers to the JOURNAL who graduated under him.

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### Dermatology and Genito-Urinary Diseases.

**Herpes of the Tympanum.**—Bonnier (*Ann. des Mal. de l'Oreille*) recently reported to the Paris Otological Society the case of a tuberculous and syphilitic patient in whom, along with herpes of the left temporal and frontal nerves, there were six small vesicles on the anterior part of the membrana tympani. Rapid recovery took place.

**Noma Pudendi Following Vacciniform Herpes of Labia.**—Fournier (*Union Méd.*) had recently under his care a girl, sixteen months old. For twelve days previously she had been slightly ailing; red patches first appeared on the vulva, and then seemed to become pustular. On admission into hospital the infant appeared to be well fed and free from fretfulness, yet slightly feverish. The labia majora, perineum, left groin, and upper part of the thighs were covered with ulcers and pustules, many bearing all the characters of a vaccinal pustule on the seventh day. On the forehead, but nowhere else beyond the neighborhood of the genitals, was one similar pustule. Next day the labia became œdematous, and on the third they sloughed. The sloughing extended rapidly, and on the evening of the fourth,

as the patient was in the act of drinking a glass of milk, she shrieked, fell back, and died within five minutes. Death seemed due to very minute emboli in the lungs, represented by hæmorrhagic foci. Fournier had never, in his experience, heard of another case of herpes vacciniiformis ending fatally.

**Strophanthus in Pruritus.**—Azúa (*Rev. de Med. y Cir. Pract.*) has found tincture of strophanthus useful in pruritus due to stasis of the circulation in the papillary layer of the skin, as observed in some cases of cardio-pulmonary disease. He tried it in seven cases of this kind, and in one of itching caused by jaundice. In the latter the treatment had no effect whatever, but in the other cases the pruritus speedily ceased under the administration of strophanthus. Twelve drops of the tincture were given in two doses every day for seven or eight days. As illustrating the effect of the treatment, a case is related in which the patient, a man aged seventy, the subject of emphysema and dilated heart, had suffered for many months from troublesome pruritus. After a week's administration of strophanthus the itching entirely ceased. The results in the other six cases were equally satisfactory. The effect of the strophanthus was so striking that Azúa seems inclined to think that the drug may have some specific action on the nerve endings, which may explain its effect in such cases.

**Syphilis and Pregnancy.**—Fournier (*Gazette des Hôpitaux*) believes that two of the most important factors in the diagnosis of hereditary syphilis in a family are great frequency of abortion and high infantile mortality. Abortion is least frequent when the father alone is syphilitic, more frequent when the mother alone is syphilitic, and most constant when both parents are infected. In the latter cases as many as nineteen abortions have been known to occur. Fournier attended a family in which the first three children were all born at term and all robust. Then the father contracted syphilis, and his wife became infected; she aborted three times in succession. Fournier found that at the Lourcine Hospital 145 out of 167 of the children born of syphilitic mothers died in the institution. Collecting trustworthy statistics of 441 cases reported elsewhere, 100 children whose mothers were syphilitic survived infancy, while 341 died. It is noteworthy that out of the 341 that died, 335 perished within their

first year; only six died later. Out of nine children in a syphilitic family, only two are likely to survive their first year.

**Protozoa in Mycosis Fungoides.**—Wernicke (*Centralbl. f. Bakt.*) relates a case of mycosis fungoides in which Posoda, working in his laboratory, discovered protozoa (coccidia) in the small tumors present in the skin; these organisms both observers regard as the cause of the disease. Unlike the structures found in carcinomatous cells, there seems no room for doubt as to the parasitic nature of the cell contents in the present case. Microscopically the skin growths were found to consist of round cells; in the centre of each collection of round cells were giant cells, in which were situated the coccidia, sometimes as many as ten in one cell. These had a light yellow color, were round in shape, and composed of a granular mass surrounded by a hyaline sheath. They measured from 3 to 30  $\mu$ . In some instances segmentation of the protoplasmic mass was observed to have taken place; by this process secondary organisms are formed within the original parasite, resembling it in appearance; these are set free by rupture of the parent organism. The parasites were not found in the blood. They could be seen well in fresh tissues without staining; amongst stains vesuvin-glycerine appeared to be the best. Other aniline dyes were also effectual.

**Circumscribed Œdema.**—Bowen (*Journ. of Cut. and Gen.-Urin. Dis.*) has described two cases of transient circumscribed œdema, accompanied by purpura. In one case the purpura, and in the other the œdema, was the prominent symptom. In the former case there was also urticaria and severe colic. Bowen discusses the relation of these cases to the nervous purpura of Henoch, and to angeio-neurotic œdema; he points out that in the latter acute gastro-intestinal complications may occur. Osler has pointed out the relationship of purpura and acute œdema, and the relationship of both disorders to peliosis rheumatica and erythema nodosum.

Milroy (*N. Y. Med. Journ.*) mentions a family many members of which suffered from œdema limited to one or both legs below the knee. He gives a table of six generations of the family, comprising ninety-seven individuals, of whom twenty-two were subjects of the œdema. In all but two the disorder was congenital. In every case but one the œdema was permanent;

in this case the œdema, which affected one foot, disappeared contemporaneously with the occurrence of great enlargement of the testicles, which developed gradually. The œdema caused little or no inconvenience; it was increased after long standing in the case examined. It would not appear that it was accompanied by any general symptoms.

**The Condition of the Urethra in Gonorrhœa.**—Dind (*Therap. Monatsh.*), after pointing out the divergence of opinion existing as to whether a gonorrhœa usually involves the posterior portion of the urethra, inclines to the view that the affection nearly always extends thus far, and quotes in support of this view Jadassohn, Eraud, and Le Proviat. He describes the ordinary methods of diagnosis, and advocates the following, by which, in eighty-eight cases, he only six times failed to detect the co-existence of a posterior urethritis. The urine having been retained for three to six hours, the anterior urethra is cleansed by irrigation; then the urine is passed and examined for pus, etc., the presence of which is held to confirm the diagnosis of extension to the posterior urethra. Acute cystitis and a weak membranous sphincter, easily yielding to anterior pressure, render this proceeding impracticable. By thus examining his patients frequently, Dind has arrived at the conclusion that posterior urethritis may supervene at any period of the disease. The author is disappointed with the results of salol, both when taken internally and when used as an injection, and Reverdin's treatment with permanganate of potash failed similarly. The negative results after injections he attributes to the condition of the posterior urethra, which cannot thus be reached. O-D.

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**A Scare.**—There is no small amount of uneasiness among the physicians of St. Joseph, Mo., in regard to the action of the grand jury, which is now in session, upon the alleged violations by the physicians of the law which requires them to return certificates of birth to the county clerk. If the grand jury should find a true bill, there is scarcely a physician in the city that would not be liable under the law, which provides that any violation of it shall be punished by a fine of not less than \$50 for each offense.

### Excerpts from Russian and Polish Literature.

**Tanacetum Balsamita as a Nervine.**—In a preliminary note in the *Meditsinskiĭ Obozreniĭ*, No. 4, 1893, p. 391, Dr. S. Smirnov, of Piatigorsk, Caucasian Russia, draws attention to an excellent nervine remedy which has been used as such in the Russian popular medicine from time immemorial. It is the *tanacetum balsamita* L. vel *Balsamita Vulgaris* W. vel *Pyrethrum tanacetum* D. C. (Russ *Kaloof* or *Kanoof*), a plant belonging to the natural family *Compositæ* and growing in abundance all over Southern Europe. The *Kaloof* possesses a pleasant and strong aromatic odor, on which account it is very extensively cultivated in Russian gardens. The peasantry use fresh leaves of the plant as an external application in cases of hemicrania and other varieties of headache, while internally the remedy is resorted to mainly in epilepsy, being administered then in the shape of a decoction, made of either fresh or dried leaves, and given a tumblerful every morning and evening.

Having tried the decoction in three cases of epilepsy, Dr. Smirnov has come to the conclusion that the *Kaloof* most decidedly deserves the high anti-epileptic reputation which it enjoys amongst the peasantry. One of his patients—a man aged 27—had been suffering from epilepsy since 3½ years of age, the fits being very severe and recurring every two or three days. About two years ago, the young man began to take the decoction, the result being that his fits immediately became shorter and less frequent, and soon ceased altogether. No relapse yet occurred. Exactly the same striking effects were obtained in the other two cases, referring to a laundress of 45, and a lady of 28. Dr. Smirnov is similarly satisfied with services he secured from the internal use of the *Kaloof* leaves in neurasthenia of various forms—more especially in such patients in whom valerian ceases to afford any relief.

[Dr. S. A. Smirnov occupying a prominent place in the ranks of the Russian medical profession, his statements will, certainly, lead to a more or less extensive clinical trial of the popular remedy, as well as to a pharmacological examination of the plant. According to Professor Julius Trapp (see his *Rukovodstvo K' Farmakognozii*, St. Petersburg, 1869, Vol. II, p. 284), the

*Kaloofer* contains an essential oil, tannic acid, and a bitter substance. Dr. Hermann Hager (vide his *Handbuch der Pharmaceutischen Praxis*, Vol. II., p. 1108) says, that in old times the plant was employed as a *stomachicum tonicum*, carminative and antispasmodic remedy.—*Reporter*.]

**Europphen in Surgical Practice.**—In the *Gazeta Lekarska*, No. 9, 1893, p. 224, Dr. R. S. Jasivski, of Warsaw, highly eulogizes Bayer's europphen, or iso-butyl-ortho-kresol-iodide, as a surgical antiseptic. He tried the substance in a series of refractory cases of tuberculous ulcers, suppurating wounds, etc., and invariably obtained a strikingly rapid healing. The author uses europphen either in powder, or in a three per cent. glycerine "suspension."

[A very instructive and exhaustive paper on europphen, written by Dr. John V. Shoemaker, of Philadelphia, may be found in the *Provincial Medical Journal*, November, 1892, p. 579. Unfortunately, the drug is very expensive, and hence can be employed solely in a well-to-do private practice. "Such is the curse of almost all valuable improvements in the healing art. They are accessible only for well-to-do classes constituting a relatively very small minority of the community, and they prove only too 'valuable' from a pocket standpoint of great masses of the people." Vide the *Provincial Medical Journal*, April, 1893, p. 213.—*Reporter*.]

**On the Influence of Cold on Koch's Comma-Bacillus.**—In the *Vratch*, No. 8, 1893, p. 207, Dr. Nikolai N. Vnükoff, of Professor N. M. Luebimoff's laboratory, in Kazan, details an important group of experiments he has undertaken during the last winter in order to elucidate the effect of frost on the vitality of Asiatic cholera microbes. In rough outlines, the experiments consisted in keeping test tubes with pure gelatine cultures of the bacteria in exposed places for varying periods, after which the tubes were left to stand at the ordinary room temperature, and as soon as their contents thawed off, another set of tubes with the same nutrient medium was inoculated with such melted cultures. The results of the interesting research may be condensed somewhat as follows:

1. Cholera microbes can be exposed to freezing temperatures for fairly prolonged periods without losing their vitality or

capacity of development and proliferation. [Thus, in one experiment a tube with microbes remained exposed to cold for forty consecutive days, the surrounding air temperature oscillating between  $0.5^{\circ}$  and  $26^{\circ}$  Reamur; and being above  $10^{\circ}$  R. for 24 days. The inoculation of the culture (after its thawing off) gave positive results, the growth proceeding in the usual way.]

2. A repeated freezing of the microbes does not produce any influence on their vitality [e. g., in an experiment a culture was frozen and melted thrice, each time the inoculation giving positive results, and the growth being as luxuriant as ever.]

3. The bacteria retain their full vitality and proliferative power even when they are exposed to such low temperature at  $26^{\circ}$  Reamur.

[The latter represents the maximum frost observed in Kansas during the last winter. In view of Dr. Vrükkoff's results, one feels justified to come to the conclusion that—assuming that Koch's comma bacillus actually constitutes the primary cause of Asiatic cholera—the winter colds can be now once and forever discarded from the list of our allies in struggle against the formidable Asiatic guest.—*Reporter*.]

**Syphilis Insontium.**—In the *Yüjno-Rüsskaia Medit. Klin-skaia Gazeta*, No. 4, 1893, p. 64, Dr. Lev. G. Golds of Odessa, relates the following cases of extra-sexual syphilitic infection from his recent practice: A Bohemian (Tzigan) girl, aged 18 months, contracted syphilitic sore of the lip from a boy, with whom she had happened to play on one occasion and who had been suffering from labial syphilides at the time. In about four or five weeks there appeared hard chancre of the right nipple in her mother who still continued to feed the infant with her own milk (for the sake of cheapness probably). About two and a half months later the woman's husband contracted hard chancre of the lower lip, near the left corner of the mouth, the man becoming infected through kissing his wife in whom about that time there occurred a recidive in the shape of labial mucous patches and papular syphilides over the body. In both of the patients the genitals proved to be sound. All three were duly treated and apparently cured. Several months later, however, the father had a relapse in the form of ulcerative sore throat. A month afterwards he transmitted (through kissing) the disease to his elder

daughter, a *virgo intacta* of 15, the primary lesions consisting in multiple superficial erosions on the labial mucous membrane.

Dr. Gold adduces further two other cases, referring to a middle-aged man and his son (a young man). The father had primary sores on the upper lip, *mons veneris*, and penis (in the retroglandular sulcus), the mode of infection in his case remaining obscure. In the son there was found hard chancre of the right tonsil, the disease being contracted from his father with whom the lad was living together at the time.

[Series of cases of *syphilis insontium* may also be found in the ST. LOUIS MEDICAL AND SURGICAL JOURNAL, January, 1893, p. 66, and the *Provincial Medical Journal*, March, 1893, p. 162.—*Reporter*.]

Berne, Switzerland,

VALERIUS IDELSON, M. D.

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## Medical Progress.

### THERAPEUTICS.

**Writer's Cramp.**—In the prevention and cure of writer's cramp, Langes, himself a former sufferer, advocates (*Muench. med. Woch*), the following method of using the pen: The holder is placed between the index and middle fingers, and rests against the centres of the first and second phalanges of the bent middle finger. It is supported in this position by the index finger slightly curving round it and by the thumb. The holder points straight outwards, and makes an angle of 30° to 35° with the paper. The fourth and fifth fingers form the support, and the movements take place at the brachio-carpal articulation.

**Thiosynamin.**—Latzko (*Inter. klin. Rundsch.*) has tried thiosynamin in forty gynæcological cases (large tumors of the uterine appendages, slight perimetric and salpingitic inflammations, displacements of the uterus) and has found it to have a softening action on the cicatrices. In uterine retroflexion all troubles disappeared after a short time of treatment with thiosynamin. The patients, almost all of whom belonged to the working class, were able to resume their usual work, and the large growths became smaller.

**Pental.**—C. G. Velez (*Rev. de Med. y Cir. Pract.*) has used pental as an anæsthetic in 108 cases (mostly dental) with perfectly satisfactory results. In many cases where it was necessary to keep the patient anæsthetised for a considerable time, he was allowed to regain consciousness and then once more placed under the influence of pental; in half a minute narcosis was complete. In one case pental was thus administered three times in 30 minutes, and two hours afterwards the patient, a man aged 28, was able to walk home, the only after-effect observed being excessive drowsiness during the remainder of the day. Velez thinks pental may with advantage replace chloroform and ether in many operations of short duration. Fifteen centigrammes given on a mask filled with coarse wool will induce narcosis in one minute. Instead of losing its effect, the drug seems to act better on the same individual at each successive application. The pulse is at first accelerated, but recovers its normal condition in a few seconds. During unconsciousness the patient sleeps quietly, the face retaining the natural color, and the eyes being opened and fixed. In some cases insensibility is absolute, but, as a rule, consciousness is not altogether abolished. The patient awakes quietly, and no disagreeable after-effects are observed. Velez adds that patients will take pental repeatedly without the slightest repugnance. Pental, being readily inflammable, should never be used at night.

**The Edison Current for Cautery Purposes.**—In the *New York Medical Journal*, Dr. Edward J. Bermingham, Surgeon of the New York Throat and Nose Infirmary, describes a very ingenious apparatus which he has devised for controlling the Edison current so that it can be used direct for galvano-cautery operations. The apparatus consists of a *rheostat*, made of coils of iron wire and a handle. The peculiarity of the handle consists of its having solid conductors, and the circuit is therefore always closed. It is under the control of the operator's thumb at all times during the operation, and the current can be cut off from, or allowed to pass to, the knife instantaneously and without producing an arc. The apparatus is simple and inexpensive, and, from the detailed description given, any electrician can construct it. Dr. Bermingham has been using it for two years and a half for all his cautery operations.

**Neuralgia.**—The central origin of many forms of neuralgic pains has been demonstrated by therapeutical results. A most interesting study, even from a practical or therapeutical standpoint, is that of the true seat of neuralgic pain (*Bull. Gen. de Thér.*). The entire subject can be reduced to a single question. Is the pain of the different forms of neuralgia really originated at the very spot at which the patient complains of it, or is it simply felt at those spots as though it arose there, in the same way, for instance, as patients who have undergone amputation of a limb, still complain of pain in the stump although the limb, which was the seat and sole cause of their suffering, has been removed?

The former hypothesis seems probable *a priori*, and has given rise to the so-called peripheral theory of neuralgia; but a number of neuropathologists, and among them some very eminent men, defend what is known as the central theory of such suffering. Although there can be no doubt that the latter theory is not applicable to all cases, still it accounts for the greater number of them, and is based on arguments that are well fitted to carry conviction, and of which the principal ones are the following:

When a nerve has been completely severed, as is sometimes done in cases of neuralgia that defy all treatment, it is not uncommon to find the pain going on unchanged after the operation; it could not, therefore, have had a peripheral origin.

Just as no one disputes nowadays the existence of nutritive disorders in hysteria, in the same way no one can deny that in certain forms of neuralgia, without neuritis, the same kind of disorders may arise.

In the third place a number of diatheses, and certain altered conditions of the blood, give rise to neuralgic pains, and unless we admit that the spine is affected primarily, how can we understand why these diatheses and modifications of the blood should affect one nerve more than another, and, in some cases, only a few centimetres, or even millimetres, of a given nerve?

Fourthly, it is known that neuralgic pains are connected very closely in different ways with hereditary neuroses. Now the latter are undoubtedly localized in the nervous centres; how therefore, could their effects be other than central?

The theory of the central seat of neuralgic pains explains most satisfactorily (and is the only theory that does so) the way in which such pains jump from one spot to another, alternate from one side to the other, and pass rapidly from this nerve to the next.

After all, the daily practice of medicine supplies the central theory of neuralgic pains with a decisive argument. It is a matter of common occurrence that cases of neuralgia of the trigeminal, sciatic, or superficial nerves, that have stubbornly resisted the action of the various local anæsthetics and different forms of counter-irritation, disappear as if by magic after only a few days' use of bromidia. This extraordinary result is readily explained by the well-known physiological effects of the active elements of bromidia, purified brom. potass. and chloral, cannabis indica, and hyoscyamus; for it must be remembered that they act on the cerebro-spinal centres. Therefore, in the great majority of cases, at any rate, neuralgic pains have a central origin, and in this way is once more verified the truth of the old Hippocratic axiom. "*Naturam morborum ostendunt curationes*," by the use of a preparation that is now so well known as to no longer require any praise—bromidia.

#### PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

**Pressure Palsies.**—Delprat (*Deut. med. Woch.*) discusses the value of electrical treatment of paralysis of the arm, brought about by pressure during sleep. Of 87 available cases, 32 were treated by galvanism, 28 by faradism, and 26 by pseudo-electrical treatment, to test the effect of suggestion. The results of the various methods differed but slightly, but the author says perhaps the number of cases was hardly sufficient. No conclusion could be drawn as to whether the duration of the paralysis was actually lessened by the above named treatment, as many patients remained away before recovery was complete.

**Absence of the Kidneys and Coccygeal Tumor.**—Oskar Schaffer (*Centralb. fuer Gynæk.*) describes a seven-month's foetus showing a spontaneous amputation of the lower third of each leg. Both radii were absent, there were only three fingers on each hand, and the hands were clubbed. There was atresia of the anus and penis. Attached to the lower end of the vertebral column was a caudal appendage, 4 cms. in length, soft, and showing a raphé on its ventral surface. Microscopically it was found to consist of subcutaneous cellular tissue, with an obliterated vessel in the centre. The whole uropoietic system was ab-

sent, the ventricular septum of the heart was defective, and there was transposition of the large vessels. The author considers the caudal appendage as due to defective development of the amnion in the first month of gestation.

**Leucocytosis Produced by Cold.**—Winternitz (*Centrbl. f. klin. Med.*) has begun an investigation into the behavior of blood cells during the external application of cold, and has ascertained their numbers before and afterwards. Within half an hour the number of white cells was considerably increased. How long this increase lasts cannot yet be definitely stated, but it was present two or three hours later. If leucocytes are phagocytes, the significance of this leucocytosis is readily appreciated. The good effects of the external applications of cold are certainly not due solely to any antipyretic action, for many drugs have a more decided action in this respect and yet do not produce the same beneficial results. In enteric fever it has been found that the unrotoxic action of the urine is considerably increased—6 to 8 times—after the external application of cold; that is, that toxins are excreted in larger quantities. The value of hydrotherapy is thus shown. If enteric fever is treated in this way during the first week, the results are much better than if the same treatment is adopted later. The value of cold in intermittent fever has also been proved. V. Jaksch bases his prognosis in acute pneumonia on the degree of leucocytosis present, and uses agents such as nuclein or pilocarpin to increase such leucocytosis. Further investigation is needed, and the hydrotherapeutic treatment of the acute infective disease may thus be placed on a sound, but hitherto unsuspected basis.

**The Spleen in Cholera.**—Stiller (*Berl. klin. Woch.*) points out that the sensitiveness of the spleen to the poisons of acute diseases was well known in prebacteriological days. The blood withdrawn from the spleen in enteric fever contained micro-organisms in ten out of thirteen cases (Redtenbacher), whereas they were missed in the fæces, and urine, and in the blood from other organs. Contractile elements must exist in the spleen, as is seen by its power of enlarging and contracting. The enlargement in infective disease is, however, an inflammatory process, and not merely a congestive hyperæmia. In the algid stage of cholera

there is no enlargement of the spleen, though it occurs in the reaction stage. Ratjen noticed that in three cases of enteric fever in which cholera supervened the previous splenic enlargement disappeared. If the enlargement is present in the diarrhoea stage, it disappears in the algid stage, to come back later. Loss of fluid to the body has been suggested as a cause. A large hæmorrhage in enteric fever will lead to a diminution in the size of the spleen. But in fulminating cases of cholera, which die before diarrhoea sets in, and in which little fluid is found afterwards in the intestines, there is no splenic enlargement. Again, at the end of the algid stage the spleen enlarges, along with the flushing of the face, etc., before fluid has been supplied. The vascular spasm and absence of splenic enlargement are due respectively to the irritation of the vascular nerves and of the muscle fibres in the spleen. Klebs says the contraction of the arteries is a pathognomic sign of cholera, and the cramps belong to the same category, but he looks upon the spasm as due to paralysis of the vasodilator nerves, owing to its long duration. The spasm of the vessels and the spleen is to be ascribed to the invasion of the cholera poison. The intestinal irritation and loss of fluid may add to it. Thus cholera is no exception to the other infective poisons, for the splenic enlargement is only delayed owing to the angio-spastic action of the poison.

**Post-Marital Amblyopia** consists in failure of vision of variable intensity consequent on sexual excess (*Med. News*). The liability of certain persons to this form of amaurosis has long been recognized, and though probably of rare occurrence, it deserves to be made widely known on account of the prognostic importance of a correct etiological deduction. In the last number of the *Archives of Surgery* Mr. Jonathan Hutchinson relates three very typical examples of this affection, the most remarkable feature whereof is the readiness with which it is recovered from. In this respect post-marital amblyopia presents a striking resemblance to tobacco amblyopia, of which recovery and freedom from relapse are very definite features. It differs from the latter in being much more rapid in its development and in passing to a far higher degree of amblyopia. Though recovery is the rule, it must not be forgotten that in both series cases may and do occur in which the disease advances to complete and permanent blindness.

## DISEASES OF WOMEN AND CHILDREN.

**Xiphopagous Twins aged three Years.**—A. Guérin (*Annal. de Gynéc. et d'Obstét.*) exhibited before the Académie de Médecine, Paris, two little girls aged three and a half years united by the ensiform cartilage. They were Indians by birth. They appeared to be individually distinct. One had been seen to laugh when the other wept. The viscera were probably connected, as when one twin took doses of ferruginous tonics both passed dark motions. As antisepsis and plastic operations on the alimentary canal were brought to such perfection in these days, Guérin believed that an attempt might be made to separate the twins.

**Dangers of Caustics and Tents.**—Pépin (*Nouv. Arch. d'Obstét. et de Gynéc.*) describes a case where a woman entered hospital with symptoms of hæmatometra, hæmatosalpinx, and retro-uterine hæmatocele. These conditions arose from cicatricial stricture of the cervix which had followed the introduction into the uterus of a medicated crayon of unascertained composition. An incision readily allowed the escape of a quantity of blood retained in the uterus. Unfortunately, a laminaria tent introduced later was passed into the substance of the uterine wall, instead of into the uterine cavity. A false cavity was thus formed, and was actually curetted. Pelvic peritonitis set in, and proved fatal.

**Fifty-four Cases of (Fleshy) Molar Pregnancy.**—Theophilus Parvin (*Am. Jour. Med. Sciences*) publishes a series of cases of fleshy mole. None of the patients are reported as dying from the effects of the delivery of the mole. The expulsion of the mole, a fleshy mass consisting of diseased ovum and chorion, was spontaneous in 137 cases; in fifteen there was either manual or instrumental assistance, diagnosis being correct, or delivery was hastened by ergot, or the ovum was expelled after the passage of the sound for exploratory purposes. Altogether the "fleshy mole" is far less dangerous than hydatid disease of the chorion. There is no damage done to the uterine walls. Indeed, Parvin finds that the chorion and not the decidua is the seat of disease, and the tables further dispel the theory that the complication is due to endometritis. Molar gestation is rare in first pregnancies (four in the fifty-four cases were primiparæ). Some of the patients had borne ten or more children. The tables show that

the delivery of a carneous mole is best left as much as possible to Nature, placental forceps and curettes being rarely needed. When in a pregnancy the uterus ceases to enlarge, its size in a given time being much less than normal, it is unwise to endeavor to avert or to postpone a miscarriage. Molar pregnancy may last from two months to over a year. The average duration is between three and four months. In many cases therapeutic measures have caused an averted abortion to subside, the mole being afterwards retained abnormally long. In two cases there was twin conception. In the first an ovum of the third month was discharged three days before the delivery of a fleshy mole. The second case had already borne twins. At the ninth month she was delivered of a fleshy mole, as big as two fists, and then a hydatidiform mole, weighing five pounds. A year later she was delivered of a healthy child at term.

#### SURGERY.

**Resection of the Liver.**—Schmidt (*Deut. med. Woch.*) reports a case of successful removal of a pedunculated gumma of the liver. A patient, aged 37, had complained of abdominal pain, loss of flesh, and constipation for six or seven months, and the presence of a swelling in the abdomen for four weeks before admission. The tumor was then found to be as large as a hen's egg, cylindrical in shape, irregular on its surface, and hard to the touch. It was freely movable, being easily displaced into either hypochondrium, and it travelled up and down with respiration. It was thought to be connected with the colon, and possibly tuberculous in nature. When the abdomen was opened the tumor was found to be pedunculated, and attached to the left lobe of the liver. It was brought out of the abdomen, the pedicle being fixed and treated by the extraperitoneal method. An elastic ligature was applied, and the pedicle cut through, four arteries and six veins being ligatured, and some general oozing arrested by the galvano cautery. Microscopical examination showed the growth to be a gumma. Some three weeks later skin grafting according to Thiersch's method was practised. The patient made a rapid recovery, and was seen three months later in good health. Such pedunculated gummata are very rare. Antisyphilitic treatment cannot be of much value. The author says

that Tillmann's extraperitoneal method of treating the stump should whenever possible be adopted. He gives short details of nine other recorded cases, in five of which the disease consisted in pedunculated gummata and in four of malignant disease. In only three of these cases was the disease thought to be connected with the liver before operation.

**A new Method of Bone Suture.**—Dollinger (*Centrbl. f. Chir.*) describes a new method of bone suture which he has made use of in two cases where perforation of the bone could not easily be carried out. The first case which he treated was a patient, aged 43, with a pseudarthrosis of the right leg, coming on after a fracture which had occurred fourteen weeks previously. At the operation the bones at the seat of fracture were found to be very ivory-like, the medullary canal was scarcely visible, and there was no trace of callus formation. The tibia, which was fractured transversely, was sutured with silver wire in the usual way. The fibula was fractured in two places, the middle piece, about four inches long, lying loose. Whilst an attempt was being made to perforate the hard middle piece it began to separate from its periosteum. Perforation was not further attempted, but a ring of silver wire was placed around the upper part of the upper fragment a little above the seat of the fracture, and a similar ring around the upper part of the middle fragment. A piece of wire was then placed on each side of the fragments, parallel to the long axis of the bone and within the two rings encircling the bone. The rings were then tightened up and fixed, and then the longitudinal wires were doubled over and their ends united on each side. By this means the fragments were held in position. The lower end of the middle fragment and the upper end of the lower fragment were next united in the same way, and the ends drawn together. In eight weeks there was complete bony union. In the second case the tibia was sutured in like manner, after a piece had been resected along with an osteochondromatous tumor which had developed in the part. The bony ends which were approximated after the removal of the resected part were hard and ivory-like, and did not easily admit of suture in the ordinary way.

## Society Proceedings.

### PETTIS CO. (MO.) MEDICAL SOCIETY,

Stated meeting of Pettis County Medical Society, Vice-President, Dr. W. O. Dunlay, in chair. Paper on cholera, by Dr. A. F. Dresel, was read. The paper contained a classical description and clinical history of the disease. The symptoms of each of the four stages were given at length. There are many predisposing causes, but without the comma bacilli the disease cannot exist. Prevention is more important than cure. Quarantine is the most effective prophylactic and should be under governmental control. When cases do occur every precaution should be taken to limit the disease. Isolation, perfect cleanliness, disinfection, etc., should be strictly enforced.

In discussing the paper, Dr. S. K. Crawford said it is easy to dispose of a case of cholera until we have one to treat. Some cases recover, but the disease usually progresses the same with and without medical treatment. Opium, bismuth, champagne, etc., do no good. Sustaining treatment is most important. Dr. W. H. Evans said after a case of cholera has progressed far, a doctor and his medicine amount to but little. Supportive measures, with astringents and opium hypodermically, may do some good. He would also advise subcutaneous and rectal injection of saline solution.

Dr. E. C. Evans said he had seen considerable cholera and had no desire to see any more of it. Treatment does no good after disease has fully developed. Prevention is all-important. Medical treatment may be more effective now than formerly, owing to hypodermatic and subcutaneous methods of using remedies.

Dr. G. H. Scott thought the effects of the disease were due to ptomaines affecting the nervous system. Fearlessness on the part of the physician is very essential in combating the disease.

Dr. R. T. Shadburne thought the bacilli must be swallowed to produce the disease. Death takes place in same manner as from severe diarrhoea. Most rational plan of treatment is sterilization of bowels by some antiseptic, such as salol; advised intra-arterial injection of saline solution. Prevention consists in eating and drinking nothing that has not been sterilized by heat.

Dr. J. W. Trader said: *The proper way to meet this crisis is prevention. Experiment has taught us that a properly ordered sanitary regulation is the best remedy.*

Dr. W. O. Dunlap said most interest centers in prevention and limitation. The disease is microbic. Bacilli not found in the blood, but in the intestinal tract. Ptomaines produce the evil effects. Beta naphthol is a good intestinal antiseptic.

Dr. S. K. Crawford related a case of compound fracture complicated with double pneumonia in which a tablespoonful of pure carbolic acid was given by mistake. Patient improved rapidly and recovered.

Society adjourned by motion.

GEO. E. McNEIL, Sec'y.

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### Book Reviews.

#### History of the Life of D. Hayes Agnew, M. D. LL. D.

By J. HOWE ADAMS, M. D. With Fourteen Full-Page Portraits and other Illustrations. In One Large Octavo Volume, 376 Pages, Extra Cloth, Beveled Edges. Price, Cloth, \$2.50 net; Half-Morocco, Gilt Top, \$3.50 net. Sold only by subscription. [Philadelphia: The F. A. Davis Co., Publishers. 1892.]

This biography is a fitting tribute to the memory of a man whose life-labors have left an indelible mark on the pages of medical history not only of this country, but of the times in which he lived. His life can be studied with profit by all engaged in the pursuit of medicine, as it would have spoken for itself without being recorded. Dr. Agnew left an impress not only in the professional world in which he moved, but upon the social environments which surrounded him, and his loss was looked upon as one which can never be filled. Dr. J. Howe Adams, who has written this history, did his work most excellently. It was a labor of love, in which he was assisted by Mrs. Agnew, as well as by a number of warm personal friends of the subject of this biography. The full-page portraits which are presented in this volume speak for themselves. They are the outward symbols of a man who was grand, noble and pure, and who will serve as an exemplar to the rising generation. Every one who is desirous of learning what the ideal medical man is, and who is there who does not? can do no better than buy a copy of this handsome volume, which has been issued in irreproachable style by the publishers.

**The Disease of Inebriety from Alcohol, Opium and other Narcotic Drugs.** Its Etiology, Pathology, Treatment and Medico-Legal Relations. Arranged and compiled by the American Association for the Study and Cure of Inebriety. 8vo., pp. 400. [New York: E. B. Treat. 1893. Price \$2.75.

The present is one of the best works on the subject which has appeared in late years. It is a veritable symposium, collated and carefully edited by Dr. T. D. Crothers, the accomplished editor of the *Quarterly Journal of Inebriety*. This publication, the organ of the American Association for the Study and Cure of Inebriety, has contained the papers written by the members, and it is chiefly from this source that the work before us has been compiled. An admirable sequence and order has been given to this vast amount of labor, it having been entirely recast, and all the views advanced made to harmonize into one impersonal whole. To those who take any interest in inebriety in all its protean forms, and what physician is there who ought not? we can safely recommend this collection of *obiter dicta* as thoroughly reliable and trustworthy, and as a collection of the best thoughts on the subject which have been advanced during the past fifteen years.

The editor deserves much praise for the excellent work he has done, and the publisher for the handsome manner in which he has done his share.

**Modern Gynecology.** A Treatise on the Diseases of Women, Comprising the Results of the Latest Investigations and Treatment in this Branch of Medical Science. By CHARLES H. BUSHONG, M. D. 8vo., pp. 380. With one hundred and five Illustrations. [New York: E. B. Treat. 1893. Price \$2.75.

A modern book for modern men is the title which could be appropriately appended to this work. It is intended to be of practical daily application, and it accordingly deals with approved methods such as are daily required in ordinary gynecological practice. Everything is placed in the simplest light possible, and the treatment advocated is such as is readily carried out by the physician who does not pretend to be an accomplished gynecologist. The details, upon which so much success depends, are insisted upon and the directions for carrying them out are given in a simple, clear manner, such that "he who runs may read" and understand. We have been quite favorably impressed with the plain, straight-forward manner in which the author treats his subject, as it carries conviction with it, and he shows that he evidently knows whereof he speaks.

We anticipate that the publisher will meet with large sales of this work, as the subject matter is good, and well supported by the handsome appearance which the book presents.

**The Diseases of the Nervous System.** A Text-Book for Physicians and Students. By DR. LUDWIG HIRT. Translated, with permission of the author, by AUGUST HOCH, M. D., assisted by FRANK R. SMITH, A. M., M. D. With an Introduction by WILLIAM OSLER, M. D., F. R. C. P. 8vo., pp. 693. With one hundred and seventy-eight Illustrations. [New York: D. Appleton and Company. 1893.

The author of this work is the well-known professor of diseases of the nervous system who has shed so much lustre on the University of Breslau. We are much pleased to see that a translation of his classical work has been placed within the reach of English readers. This work does not touch upon mental diseases, but deals strictly with those affections which manifest themselves in the nervous system, both central and peripheral. The work is constructed on an anatomical basis, the author beginning with a consideration of the diseases of the brain and its meninges. The cord and its diseases, as well as the other portions of the nervous system are taken up in regular sequence, thus making the work an analytical one, perhaps the best method which could be followed by those who desire to become fully acquainted with the subject. The illustrations are, for the most part, original, and are undoubtedly of the greatest aid in elucidating the text. The value of this work is incontestable in view of the high endorsements it has received in the hands of recognized authorities on nervous diseases. Dr. Osler's recommendation, which is given in no measured terms, should in itself suffice to render it popular in this country as of scientific worth and practical utility.

**Diseases of the Skin.** Their Description, Pathology, Diagnosis, and Treatment. With Special Reference to the Skin Eruptions of Children. By H. RADCLIFFE CROCKER, M. D. (Lond.). 8vo. pp. 987. [Philadelphia: P. Blakiston, Son & Co. 1893. Price \$5.00.

A few years since Crocker's work appeared, and it elicited good opinions from all those who had any acquaintance with the subject of dermatology. In the second edition before us the author has not only thoroughly revised his former work, but he has made those additions which are rendered necessary by the progress made in dermatology during the intervening period of time. It is for this reason that the book has become such a favorite one as a text-book in colleges. It is up to the times, clear, and contains that which will make it useful to the student when he enters upon the more arduous task of practice.

Viewed from the general practitioner's stand-point, it is quite complete and clear, as well as practical in the methods adopted by its author. A particularly valuable innovation to which particular attention has been paid is the care given to a consideration of

the skin eruptions which occur in children. This is a subject to which but little attention has been paid heretofore by authors of works on dermatology, although it is one replete with interest and importance to every one engaged in general practice. So far as the therapeutical measures recommended are concerned, they are in the main good, although some modifications might be suggested by those possessed of a wide experience. Still, the methods recommended are such as are safe and, in the major number of cases, successful.

Taking the work on the whole, it is one which can be safely recommended as a good, reliable text-book for students, containing a vast amount of useful information of a reliable character. It is a comparatively large work, but its size is its very recommendation, as it is a book which will not be thrown away after commencement, etc., but will appropriately find its proper position in the library as a useful reference book in many a perplexing case. The present edition is vastly superior to the first one, and will deservedly hold a prominent position among the works in English, which are regarded as classics on the subjects of skin diseases.

O-D.

**A System of Genito-Urinary Diseases, Syphilology and Dermatology.** By Various Authors. Edited by PRINCE A. MORROW, A. M., M. D. In Three Volumes. Vol. I. Genito-Urinary Diseases. 8vo. pp. 1074. With Illustrations. [New York: D. Appleton and Company. 1893. St. Louis Branch Office, 904 Olive Street. Price, Cloth, \$6.50; Sheep, \$7.50. Sold by subscription only.]

It is of late years that "systems" have become popular, and we must confess that they have many advantages which render them superior to the ordinary set works on subjects. Of course there is always a certain disadvantage connected with them, inasmuch as the editor is more or less influenced in his choice of collaborators by the fact of their being friends or the friends of friends, and in this way capable writers are frequently overlooked or deliberately ignored. Yet, despite this, it is always an advantage to possess a work composed of a series of monographs by capable men, as we are not necessarily held or governed by the one-idea plan, which is so often a real detriment to the earnest student. The ideas of different men (and they should have sufficient personal experience to render them valuable) certainly tend to make a reader's views more broad and comprehensive. Not only this, but a wide field is opened up to the reader and his thoughts are given opportunities to expand and enlarge, by coming in contact with the diverse views of authors, each of whom is an adept in his chosen field.

In the work before us we are presented with the first volume,

which deals with genito-urinary diseases. That the work is comprehensive is attested to by its dimensions, and yet each author has been necessarily restricted in the treatment of his subject. For one who is not desirous of obtaining a complete library in one volume, and no one is unreasonable to such an extent, the treatise before us will prove a most valuable mine of reliable information. The entire subject of andrology is treated, and this means that subjects hitherto not mentioned in works of this character receive full consideration in this volume. Among them we may mention the Functional Disorders of Micturition and their relation to different morbid states, the diagnostic significance of pathological modifications of the urine, uro-genital tuberculosis, etc. Among the most valuable monographs given are those on lithotripsy and litholapaxy, urine-analysis, endoscopy and cystoscopy. Lack of space forbids our speaking at greater length on the special valuable features of this work. Suffice it to say, that the corps of collaborators includes the best known and most capable genito-urinary surgeons in this country. The illustrations are numerous and well executed, including many full-page colored plates. The mechanical execution is of the best and of such a character as to make us inquire how such a magnificent work can be sold at such a low price.

**Kirke's Hand-Book of Physiology.** Hand-Book of Physiology. By W. MORRANT BAKER, F. R. C. S., and VINCENT DORMER HARRIS, M. D. (Lond.), F. R. C. P. 8vo., pp. 884. Thirteenth Edition. With upwards of five hundred Illustrations, including some Colored Plates. [Philadelphia: P. Blakiston, Son & Co. 1892.

Kirke's Hand-Book has held an enviable position as a guide to physiology for many years, and, judging from the present edition, it is destined to retain this good opinion for many more years to come. In the present volume we find evidence of the work having been entirely re-cast, and a number of fine illustrations have been added which are in keeping with the high standard established in the text. This work is not only useful as a guide to a better appreciation of the subject with which it deals, but it is of interest as containing a record of the latest advances made in this branch of medical service, more especially in the department of human embryology to which a generous portion of the text is devoted.

The histological illustrations are all good, and in many instances have an added interest given them by being printed in colors such as are imparted to them in the staining process of microscopic manipulation. This method gives an added interest to the subject which a mere black and white picture cannot impart. It gives an appearance so closely approximating that of

an actual histological mount that the reader almost feels that he is gazing at the object through a microscope instead of looking at a cold reproduction of a more or less diagrammatic character.

We can unhesitatingly recommend this work as one worthy of being adopted as a text-book in medical colleges. It will prove most helpful, to teachers, as it is so clear and perspicuous that no difficulty will be experienced by students in its study.

**The International Medical Annual and Practitioner's Index for 1893.** Edited by a corps of thirty-eight department editors—European and American—specialists in their several departments. P. W. WILLIAMS, M. D., Secretary of Staff. 8vo., pp. 626. Illustrated. [New York: E. B. Treat. 1893. Price \$2.75.

The Annual is always a welcome visitor to our table, and a most useful one as well, as frequent references to past volumes amply testify. It has made for itself an enviable reputation, and the present issue—the eleventh Annual—we can safely say is far superior to its predecessors. The illustrations are more numerous and executed much better than formerly, whilst the department editors seem to have made an effort to outdo their former work, in which they have succeeded in a most marked manner.

Part I. comprises the new remedies, together with an extended review of the therapeutic progress of the year.

Part II., comprising the major portion of the book, is given to the consideration of new treatment; and is a retrospect of the year's work, with several original articles by eminent authorities.

The third—and last part—is made up of miscellaneous articles, such as recent advances in sanitary science; improvements in pharmacy; new inventions in instruments and appliances; books of the year, etc.

The arrangement of the work is alphabetical, and, with its complete Index, makes it a reference book of rare worth.

To those who desire to have a permanent record of the past year's progress in medicine and surgery in such form as to prove readily available, and of practical use, we would say—buy the Annual, and you will never have cause to regret it.

**A Hand-Book of The Diseases of the Eye, and Their Treatment.** By HENRY R. SWANZY, A. M., M. B., F. R. C. S. I. Small 8vo., pp. 518. Fourth Edition with Illustrations. [Philadelphia: P. Blakiston, Son & Co. 1892. Price \$3.00.

The past year has been quite prolific in the production of works on ophthalmology, but this present fourth edition of the eminent Irish exponent of ophthalmology, although not pretentious, is certainly to be placed among those which occupy the foremost rank.

That there has existed a steady and large demand for this handbook is shown by the fact that barely two years elapsed between the third edition and the present one. Swanzy is to-day acknowledged as one of the foremost men in his line in the British Isles, and we cannot commend his work any more than by saying that he has attempted that most difficult task which is laid before an author, "saying not all he might, but all he ought." He has perfectly succeeded in this, and has furthermore thoroughly done another essential thing—he has carefully revised his book so as to bring it up to date. He praises very highly the treatment of trachoma by means of Knapp's roller forceps, regarding it as possibly the best method, a compliment which will certainly be appreciated by American ophthalmic surgeons. This excellent manual is certainly one deserving of commendation, and of such a nature as to prove of practical utility to practitioners as well as students.

**Disease in Children.** A Manual for Students and Practitioners.

By JAMES CARMICHAEL, M. D., F. R. C. P. Ed. 12mo. pp. 591. Illustrated with Thirty-one Charts. [New York: D. Appleton & Co. 1892. St. Louis: J. L. Boland Book & Stationery Co. Price \$3.00.

The author of this comprehensive manual needs no introduction to his readers. As one of the foremost teachers of the Edinburgh University he long ago made his mark. In the little work before us we have placed at our disposal the fruit of a large clinical experience, condensed in such a manner as to prove of real value. The author presupposes an acquaintance with the general principles and practice of medicine, thus rendering unnecessary his entering into details which are supposably known, and permitting him to devote more attention to pure pediatrics. The commoner diseases are dwelt upon at greater length, the more unusual or rare affections being summarily dealt with. We find, from an examination of this work, that a certain amount of conservatism marks the statements which are advanced and good reasons are given for the caution manifested in adopting certain views. Thus in speaking of the relations existing between chorea minor and rheumatism, the author very justly points to the fact that a systematic investigation of the subject has shown that rheumatism succeeds the nervous trouble so frequently that the circumstance of its precedence cannot be used as an argument to endeavor to make it play the role of a cause. He looks upon diphtheria as a specific contagious disease, attended by characteristic exudations on the mucous surfaces or skin. His treatment of the dread disease seems quite simple and is largely directed to constitutional measures. We cannot enter into a complete review of this number of Appleton's Students' Manuals, but we can safely recommend it as a work which will prove useful as a reference book on the subject of which it treats.

## Literary Notes.

**Books Received.**—The following books were received during the past month and will be reviewed in the JOURNAL:

**A System of Genito-Urinary Diseases, Syphilology and Dermatology**, by various authors, edited by Prince A. Morrow, A. M., M. D. In three volumes. Vol. I, Genito-Urinary Diseases. 8vo., pp. 1074, with illustrations. [New York: D. Appleton & Company, 1893. St. Louis branch office: 904 Olive street. Price: cloth, \$6.50; sheep, \$7.50. Sold by subscription only.

**The Diseases of the Nervous System. A Text-Book for Physicians and Students**, by Dr. Ludwig Hirt. Translated, with permission of the author, by August Hoch, M. D., assisted by Frank R. Smith, A. M., M. D. With an introduction by William Osler, A. M., M. D., F. R. C. P. 8vo., pp. 693. With 178 Illustrations. [New York: D. Appleton and Company, 1893.

**Diseases of the Skin. Their Description, Pathology, Diagnosis and Treatment, with Special Reference to the Skin Eruptions of Children**, by H. Radcliffe Crocker, M. D. (Lond.) 8vo., pp. 987. [Philadelphia: P. Blakiston Son & Co., 1893. Price \$5.00.

**Kirke's Hand-Book of Physiology—Hand-Book of Physiology**, by W. Morratt Baker, F. R. C. S., and Vincent Dormer Harris, M. D. (Lond.), F. R. C. P. 8vo., pp. 884. Thirteenth Edition, with upwards of five hundred Illustrations, including some colored plates. [Philadelphia: P. Blakiston, Son & Co., 1892

**Modern Gynecology. A Treatise on Diseases of Women, comprising the Results of the Latest Investigations and Treatment in this Branch of Medical Science**, by Charles H. Bushong, M. D. 8vo., pp. 380, with one hundred and five Illustrations. [New York: E. B. Treat, 1893. Price \$2.75.

**The Disease of Inebriety from Alcohol, Opium and other Narcotic Drugs: its Etiology, Pathology, Treatment and Medico-Legal Regulations**, arranged and compiled by the American Association for the Study and Cure of Inebriety. 8vo., pp. 400. [New York: E. B. Treat, 1893. Price \$2.75.

**Transactions of the Medical Association of the State of Missouri, at its Thirty-fifth Annual Session, held at Pertle Springs, Mo., May 17, 1892.** 8vo., pp. 316. [St. Louis: Ev. E. Carreras, Printer, 1893.

**The International Medical Annual and Practitioner's Index for 1893.** Edited by a corps of thirty-eight Department Editors—European and American—Specialists in their Several Departments. P. W. Williams, M. D., Secretary of Staff. 8vo., pp. 626. Illustrated. [New York: E. B. Treat, 1893. Price \$2.75.

Cholera; its Protean Aspects and its Management, by Dr. G. Archie Stockwell, F. Z. S. In two volumes. Vol. I. 12mo., pp. 132. Vol. II. 12mo., pp. 133-306. [Detroit: Geo. S. Davis, 1893. Price 25 cents per volume.

Diseases of the Skin. Their Description, Pathology, Diagnosis, and Treatment, with Special Reference to the Skin Eruptions of Children, by H. Radcliffe Crocker, M. D. (Lond.) Second Edition, Revised and Enlarged, with ninety-two Wood Cuts. 8vo., pp. 987. [Philadelphia: P. Blakiston, Son & Co. 1893. Price \$5.00.

The Missouri State Medical Society's Transactions have reached us and are really in handsome form. The record of the meeting of 1892 is one of which this association may well be proud, as it fills quite a comparatively large volume, and the papers are of a superior order of merit. Such a record should prove an incentive to the members to endeavor to make the meetings larger, and the profession of the State should recognize the importance of the work done by attending in greater numbers and thus lend their moral support to the hard, earnest workers who have made the Society what it is.

Cholera is a subject attracting much attention at the present time in view of a threatened invasion of this country by the dread disease. A very interesting and useful work on this subject in, two volumes, by Dr. Archie Stockwell, has just appeared from the press of George S. Davis, of Detroit, and it is quite *apropos*. It deals with the disease in all its protean aspects as well as its management. It is a very careful résumé of the work of former writers, supplemented by the author's personal experiences, and cannot fail of being of the highest practical value to physicians. We would recommend every practitioner to possess himself of a copy of this little work as a safe and trustworthy guide which may be needed at any time in the near future. Its low price, 25 cents per volume, places it within the reach of all.

Transactions of the American Ophthalmological Society at its twenty-eighth meeting, held at New London, Conn., 1892, forms an octavo brochure which is paged from 245 to 458. It is replete with excellent papers devoted to diseases of the eye by those who have in no small degree contributed to the reputation which has been secured by American ophthalmology. The society is exceedingly prosperous and enjoys a large membership—there being 113 active and one honorary member. A very interesting paper is that on hyaline bodies in the nerve-head, by Dr. G. E. DeSchweinitz, the value of the contribution being enhanced by some excellent reproductions of microphotographs of the condition taken by Dr. William M. Gray. The present volume will be a very valuable one to progressive ophthalmologists and is a very flattering evidence of the good work done by the society publishing it.

**A Guide to Dissection** of a practical nature, for beginners in the dissection of the human body, has just been issued from the press of E. B. Treat, of New York. It is an oblong duodecimo of 250 pages, adapted to the pocket, and sold at the extremely low price of \$1.00. The author, Irving S. Haynes, Ph. B., M. D., has thoroughly succeeded in constructing a guide which comprises improved methods and formulæ of work to be accomplished, so essential to beginners. It is intended to supply the absence of detail noticed in the large works on descriptive anatomy, and give the separate grouping of muscles, vessels, nerves, etc., in three courses of three weeks each. It will, without doubt, prove eminently popular as a practical guide and dissecting-room vademecum.

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### Melange.

**Pan-American Medical Congress.** — **THE REPUBLIC OF COLOMBIA AND THE PAN-AMERICAN CONGRESS.** The Department of State at Washington has promulgated the following letter recently forwarded by the United States Minister to Colombia:

REPUBLIC OF COLOMBIA, }  
FOREIGN OFFICE, }  
Bogtoa, March 14, 1892. }

TO HIS EXCELLENCY, JOHN T. ABBOTT,

Envoy Extraordinary and Minister Plenipotentiary of the United States, etc.

Sir: I have received, together with your very polite note of February 27 last, a copy of the instructions of the Department of State in Washington relating to the meeting of the Pan-American Medical Congress, whose sessions will take place in the coming month of September.

The Government of Colombia recognizes that the labors of that Congress will favor the advancement of medical science and will actively contribute to the advancement of judicious regulations connected with hygiene and naval quarantine. In response to the courteous invitation which the Government of the United States has been pleased to extend through your honorable legation to be officially represented in the said Congress, this Government has appointed as its delegate for that purpose Dr. Pio Rengifo, to whom instructions will be transmitted through the Office of Public Instruction.

Asking you to be kind enough to notify the proper person of the appointment of the said Dr. Rengifo, I am pleased to reiterate to your excellency the assurances of my most distinguished consideration.

MARCO F. SUAREZ,  
Secretary of Foreign Affairs.

GOVERNMENT APPROPRIATION FOR THE PAN-AMERICAN MEDICAL CONGRESS: Early in the last session of Congress the Secretary of the Treasury and the Secretary of State jointly recommended that an item be inserted in the sundry civil bill appropriating \$15,000 for the entertainment of the Pan-American Medical Congress. The item was rejected by the House Committee on ways and means, but was reintroduced in the Conference Committee by Senator Gorman, under whose able championship it was agreed to and became a law. The medical profession will not soon forget this considerate act on the part of the Senator from Maryland.

GOVERNMENTAL DELEGATES TO THE PAN-AMERICAN MEDICAL CONGRESS: Hon. Rowland B. Madanly, United States Minister to Ecuador, transmits information through the Department of State, that Dr. Ricardo Cucalon, of Guayaquil, has been appointed one of the Delegates for that country to the Congress.

The United States *Chargé d' Affaires* at Petropolis has transmitted information through the Department that the Government of Brazil has accepted our invitation to take part in the Congress, and has appointed Dr. J. Baptista da Lacerda, the distinguished teacher and scientist of Rio de Janeiro, one of the delegates thereto.

The Mexican Legation at Washington furnishes information that Dr. Fernando Lopez, Surgeon-General of the Mexican Army, has been appointed one of the delegates to represent the Government of Mexico.

SECTION ON OTOTOLOGY.—The Section of Otology has been rendered necessary by the fact, that while the treatment of diseases of the ear has in the past been mainly in the hands of ophthalmologists, the recent advance in the study of diseases of the nose and pharynx has necessarily divided the practical work of treatment of the disease of the ear. So that at present we find these diseases considered by both Ophthalmic and Rhinologic Surgeons.

It is hoped that in this section surgeons of both classes may meet, and to this end the effort will be made to secure hours not conflicting with either of the other sections.

Communications in reference to papers should be addressed to the English speaking secretary, Dr. Max Thorner, 141 Garfield Place, Cincinnati, O.; suggestions as to work and exhibition of instruments to the Executive President, Dr. C. M. Hobby, Iowa City, Iowa.

SECTION ON THERAPEUTICS.—Dr. H. A. Hare writes: Will you kindly state in the columns of your esteemed journal that it is the earnest desire of the officers of the section on therapeutics of the Pan-American Medical Congress that both specialists and general practitioners should contribute articles to its proceedings.

Gentlemen who desire to read papers at this meeting should notify the undersigned at once of their intention, and should send him by July 10, at the latest, an abstract of their paper in order that it may be translated into the three official languages of the Congress and published in the programme. The importance of this section and the interesting papers which have already been promised give assurance of a very successful meeting.

H. A. HARE, *President of Section.*

SECTION ON THERAPEUTICS.—Members, whether specialists or general practitioners, who desire to read papers at this meeting should notify H. A. Hare, M. D., President of Section, at once of their intention and should send him by July 10, at the latest, an abstract of their paper in order that it may be translated into the three official languages of the Congress and published in the programme. The importance of this Section and the interesting papers which have already been promised, give assurance of a very successful meeting.

A Victim of Malpractice Suits.—We learn that Dr. K. D. Wise, of Los Angeles, has again been suffering the annoyance of a malpractice suit, this time at the instance of a man named Clarence Jones, whose broken arm the doctor some time ago set, through whose own negligence the setting was in some way disturbed. The case was in progress before Judge Shaw's court and attracted considerable attention among the profession. These suits which have pestered the doctor of late are all attributable to one source of enmity. Thus far the doctor has been successful

in them all, and so far as the facts show in the present case he will be successful in this. The doctor's many years standing as a successful surgeon in Los Angeles places his professional reputation beyond the probability of a blackmailing suit being successful.

Eight days were consumed in the trial, and the jury decided that the case was without merit in five minutes.

**U. S. Marine Hospital Service.**—We are in receipt of the following communication:

TREASURY DEPARTMENT,  
OFFICE SUPERVISING SURGEON-GENERAL,  
U. S. MARINE HOSPITAL SERVICE,  
Washington, April 13, 1893. }

A board of officers will be convened at Washington, D. C., June 26, 1893, for the purpose of examining applicants for admission to the grade of Assistant Surgeon in the U. S. Marine Hospital Service.

Candidates must be between twenty-one and thirty years of age, graduates of a respectable medical college, and must furnish testimonials from at least two responsible persons as to character.

For further information, or for invitation to appear for examination, address,

THE SUPERVISING SURGEON-GENERAL,  
U. S. MARINE HOSPITAL SERVICE,  
Washington, D. C.

**Reduced R. R. Rates to Meeting of the Missouri State Medical Association.**—It is officially announced through the Western Passenger Association that the following roads have granted reduced rates to persons attending the meeting of the Missouri State Medical Association, at Sedalia, May, 16, 17, 18, 1893:

Atchison, Topeka & Santa Fe R. R. Co.; Chicago, Burlington & Quincy Railroad; Chicago, Milwaukee & St. Paul Railroad; Chicago, Rock Island & Pacific Railroad; Chicago Great Western Railway; Hannibal & St. Joseph Railroad; Kansas City, St. Joseph & Council Bluffs Railroad; St. Louis, Keokuk & Northwestern R. R.; Missouri, Kansas & Texas Railway; Missouri Pacific Railway; Wabash Railroad; St. Louis & San Francisco Railway Co.

The conditions are as follows: Parties purchasing tickets must receive from the local agent when ticket is purchased a certificate to the effect that they have paid one full fare going; this certificate when properly signed by the secretary of the State Medical Association will entitle the bearer to a ticket for one-third ( $\frac{1}{3}$ ) full fare returning, making the rate for the round trip one and one-third ( $1\frac{1}{3}$ ) fare.

If necessary to purchase tickets from more than one of the above mentioned roads to reach the place of meeting, certificate should be obtained in each instance.

N. B.—“Certificates will not be honored for return rates unless presented within two days after the date of adjournment of the meeting (Sunday not being accounted a day), nor will certificate be honored in cases when going tickets were purchased more than three days prior to the commencement of the meeting, or after date announced as closing date thereof.”

**The Great Slot Machine.**—A writer in the *Medical Visitor* speaks of having found a circular in which a slot machine for homœopaths is described. We make the following extract: The internal mechanism is built on the lines of the Organon, and is of so very elaborate and delicate a nature that I shall not attempt to describe it here. I simply remark in passing that four sets of “Hering’s Guiding Symptoms,” ten copies of “Boenninghausen’s Pocket Repertory” and eight sets of “Allen’s Encyclopedia” were used in its construction.

It differs from most of my machines in having two slots; in one of these you drop the patient, in the other a dollar.

The moment the patient drops out of sight, a clicking sound is heard which is the machinery at work extracting the true and accurate symptoms of the case and selecting the precise remedy therefor.

When the process is completed, a gong rings, and on opening a door in the rear, you discover the patient in a gentle perspiration, with carefully dusted clothes and neatly combed hair. In a small box above his head you will find a drachm vial of the Similum to the case. My agent calls fortnightly to get the dollars. Very few accidents have occurred as yet. The most serious was one in which the combination got started wrong, and the machine put the medicine on the seat and tried to cram the patient

into the small box, evidently under the impression that he was a drachm vial. His cries called attention to the mistake before serious damage was done to him. Of less importance was the mishap that befell a very tall patient. His head being much higher in the machine than usual, the combing attachment raked his scalp most cruelly. He accepted my apology and a package of court plaster with good grace.

**Former Epidemics of Cholera in Canada.**—Cholera first reached Canada in 1832. In 1831 it was raging in various parts of Europe, and the imperial authorities sent communications on the subject (*Canad. Pract.*) In consequence of the warnings thus received, the first board of health in Canada was formed in Quebec in February, 1832. Cholera first appeared in Quebec on June 8th of that year; in Montreal, June 10; and thence extended to all parts of Canada. The epidemic lasted about four months. The second epidemic appeared in the quarantine station at Grosse Isle in the latter part of May, 1834; mild at first, but assuming a virulent character in July and August. It also lasted about four months.

The third epidemic entered Canada by Kingston in the latter part of May, 1849. Again it showed its greatest severity in July and August, and lasted about four and a half months.

The fourth epidemic entered Western Canada from the United States in August 1851, and lasted about two months. Quebec was the last of the large cities to be attacked.

The fifth epidemic occurred in 1854, being brought to this country by two emigrant ships which reached Grosse Isle about the middle of June. Cholera appeared in Quebec, June 20th, and soon spread over the whole of Canada. We have no record of death rates of the early epidemics. An attempt was made by the Central Board of Health to get statistics of the 1854 epidemic, and the records obtained show 4,486 deaths. This is acknowledged to have been far short of the mark, probably less than half. One may form an approximate idea of the terrible ravages of these scourges by doubling the above figures, and then considering that, as far as the whole country was concerned, the fifth epidemic was one of the mildest of the five.

Since 1854 there has been no serious epidemic, but there was a big scare in 1869, and at the same time a few cases of cholera.

**Scandal-Mongering Coroners.**—A poor girl kills herself, and to feed the voracious appetite of the filth-loving public the coroner and his physicians divulge medically doubtful, and morally pernicious, details of the post-mortem table. What human right have physicians to increase the agony of the parents and the monomania of the salacious by such betrayals of trust? Members of the profession who thus besmirch us all should be told by their fellows what is thought of them, says a contemporary. We would add that when these fellows are told what is thought of them, the punctuation marks should be accentuated with a club.

**An Attack on the Morality of Chattanooga Physicians.**—The Rev. Dr. J. P. McFerrin, of Chattanooga, Tenn., has created a decided sensation in medical circles in that city. During his sermon, in referring to the immorality existing in the city, the "Rev." said that "most physicians' offices in this city were regular places of assignation. That no matter what illness or complaint befell women, it was only when death was imminent that a male physician should be permitted to examine them, and then in the presence of some other member of the family." The Chattanooga Medical Society has called a special meeting to take action in the matter, says a contemporary. The good and truly holy "Rev." should consider the failings of his own cloth before animadverting upon those of physicians.

**From Mother.**—The following little episode occurred at the commencement exercises of the St. Louis College of Physicians and Surgeons. As is the custom upon such occasions the various floral offerings were distributed to those members of the graduating class who were so fortunate as to be remembered by their friends. The Dean picked up a bouquet—it was not gaudy; it seemed to contain but few flowers and had evidently not been purchased at a florist's. It had no meretricious adornments; it was simply tied with a string. A card was attached with the simple inscription "From Mother." When this was read a hush fell over the audience. This simple tribute of unwavering love had touched a cord in the heart of every one. Fond mother! May her brightest day dreams be realized by her boy. He certainly owes it to her to do his best; to her who forgot in her affection that hers was not the only one who had a mother.

**Keeley.**—The following appears in an exchange: Keeley is said by one of his physicians to be an illiterate, uneducated man. He has been compared, if he has made a discovery and there is truth in his methods, to a man sitting on the bank of a river with hundreds of people floundering and drowning in the water. With ropes and planks around him, he refuses to throw a drowning man a rope unless he will first pay him one hundred dollars. The fellow on the bank of the river would be no better than a murderer, and might be hauled up before the court of Judge Lynch by an indignant community. It need hardly be said, if Keeley has any knowledge of medicine he owes all to the labor of others who have gone before him. He now refuses to contribute his mite if he has any.

**The Modern St. Peters.**—The physicians, the homœopaths and the eclectics of Connecticut have united to try and get some kind of a law passed that shall prohibit the State from becoming the scamps' asylum for all the medical quacks and frauds driven out of other States. These, of course, made quite a "respectable" showing at the hearing of the measure. One of the arguments used was drawn from the Bible story of St. Peter and the lame man in the temple (*Med. News*). "If," said this wonderful advocate, "there had been a medical practice bill then, some one of the regulars would have said: 'Peter, have you a certificate from the health board of Judea?' 'No.' 'Peter, have you passed an examination in anatomy, physiology, medical chemistry, obstetrics, hygiene, pathology, diagnosis and therapeutics, including practice and materia medica?' 'No.' 'Then we'll fine you \$100 for treating this man without a certificate, and if we catch you doing it again we'll fine you \$200 and give you six months in the Jerusalem jail.' "

The comparison of the modern medical mountebank with St. Peter might more truthfully, if not more modestly, have been limited to the fact, that whereas Peter is reported to have lied three times, his would-be imitator has never been known to tell the truth.

**An Excellent Remedy.**—In an eastern city, recently, two physicians were walking together on the street when one of them lifted his hat to a lady whom they met (*Chicago Bull. Med.*) "A patient?" asked the other. "Oh, in a way," answered the

first doctor; "I treated her the other day for a small difficulty." "What was it?" "A wart on her nose." "And what did you prescribe?" "I ordered her to refrain absolutely from playing on the piano." The other doctor was astonished. "Ordered her to leave off playing on the piano—for a wart on her nose! Well, I can't understand your treatment." "If you knew the circumstances you would," said the first doctor, "she occupies the flat just under mine."

**The Oldest Prescription in the World.**—In the course of a deeply interesting lecture, delivered by Professor A. Macalischer, M. A., M. D., F. R. S. (Professor of Anatomy, Cambridge), at Firth College, Sheffield, on "Studies in Ancient Egyptian Literature," some of the earliest medical writings were referred to and explained and translated by the Professor (*National Druggist*). Photographs of soiled and seared papyri, together with the photographs of the mummified monarchs and magicians who wrote them, were depicted on the screen. Among the earliest prescriptions shown by the professor was one for a "hair wash" for "promoting the growth of the hair," for the mother of King Chata, second king of the first dynasty, who reigned about 4000 B. C. It is as follows:

Pad of a dog's foot.....	1 part.
Fruit of date palm.....	1 part.
Ass's hoof.....	1 part.

Boil together in oil in saucepan.

Directions for use: Rub thoroughly in.

Considering the non-hirsute nature of the ingredients used, one would imagine that homeopathy was in those bygone days carried even to a greater extreme than in later times.

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## Local Medical Matters.

**The New Baptist Hospital.**—This new addition to the hospitals of St. Louis is situated at the corner of Nineteenth and Carr Sts.—the old Hotel Keyes, which has been transmogrified into a capacious and modern hospital, furnished with every convenience that the most improved therapeutical and hygienic ideas could suggest. The sixty odd rooms have been freshly painted and thoroughly repaired, and elegantly furnished throughout under the direction of Dr. C. C. Morris, the superintendent of

the institution. One hundred beds have been put in, and the hospital is now ready to take care of that many patients. The following is the staff as at present organized:

Dr. C. C. Morris, Obstetrics and Gynæcology; Dr. Waldo Briggs, Surgery; Dr. G. F. Hulbert, Gynæcology; Dr. Wm. Dickinson, Nervous and Mental Diseases; Dr. A. D. Williams, Ophthalmology; Dr. Leon Straus, Rectal Diseases; Dr. A. C. Robinson, Medicine; Dr. G. A. Jordan, Heart and Lung Diseases; Dr. Wm. Standing, Diseases of Children; Dr. H. M. Pierce, Orthopædic Surgery; Dr. R. Barclay, Aurist; Dr. G. B. Taylor, Dermatology. Mrs. Eugenia A. Frost, lately of Brooklyn, is chief nurse and Superintendent of the Training School for Nurses.

There will be free daily clinics, to which all St. Louis physicians and students are invited. A certain number of the beds are free. While the institution is under the ownership and management of the Baptist Denomination, the management is unsectarian, and patients of all religions will be welcome and treated with the utmost impartiality. One of the features of the institution is the training school for nurses, which, as stated, will be under the management of Mrs. Frost, who is thoroughly qualified in this direction and comes hither with the highest endorsements from Brooklyn and New York physicians. A well-appointed reading room and library have been provided for, and the management will feel grateful to physicians and others who will kindly contribute any reading matter to the same.

**Dr. A. H. Ohmann-Dumesnil** has resigned the chair of Dermatology and Syphilology in the St. Louis College of Physicians and Surgeons. This move was necessitated by a pressure of the interests which require more time than he has hitherto had to devote to them. Among these is his forthcoming illustrated quarterly on skin diseases and syphilis, which will be known as the *Quarterly Atlas of Dermatology*.

**St. Louis Hospital Assistants Appointed.**—At the meeting of the Board of Health, April 6, the following appointments of assistant physicians in the City and Female Hospitals were made from the class of medical graduates examined by the Board of Health on the 30th ult.:

Dr. H. H. Boon, First Assistant Physician at the City Hospital.

Dr. John P. Stack and Dr. H. S. Crossen, Senior Assistant Physicians, City Hospital.

Drs. Henry L. Goodman, Helmuth M. Kinner, Dudley E. Buck, John B. Miller, W. E. Sanders, Lewis W. Ehrlish, Jacob M. Epstein and Howard Carter were made Junior Assistant Physicians, City Hospital.

Drs. Edgar S. Thompson, G. G. Cottam and George B. Perkins, Assistant Physicians at the Female Hospital.

## Miscellaneous Notes.

**Physicians are Always Interested** in new and reliable pharmaceuticals that are placed on the market. Among the latest novelties in elegantly manufactured preparations, we would call your attention to "Perloids" or Improved Pearl Shaped Capsules, just placed on the market by that progressive capsule house, H. Planten & Son, New York, and who have favored us with samples. The manufacturers inform us that "Perloids" are prepared from the finest materials by improved processes and special machinery, and filled with such valuable medicinals as Apiol, Copaiba, Creosote, Cubeb Oil, Damiana, Morrhual Pure and with Creosote, Sandal Oil. Terebene, Turpentine, etc., etc. They are readily swallowed, perfectly soluble, symmetrical of shape and elegant of finish, making them the desideratum for prescribing. We suggest that you send for samples of Perloids as well as of Hard and Elastic Soft Capsules made by H. Planten & Son.

**Salitonia** is being daily prescribed by the leading physicians of this country, who are profuse in their expressions of satisfaction with its prompt and efficient action. As Artemas Ward would have said, "it is a howling success."

**Laparotomy.**—Excerpt from paper read before the Iowa State Medical Society, Des Moines, Ia., May 19th, 1892, by T. J. Maxwell, M. D., Prof. of Surgery, Keokuk Medical College, Keokuk, Ia.

"Case IV. \* \* \* \* Appetite variable. Some nausea during the thirty hours subsequent to operation. Retching and vomiting was controlled by small doses of Tarrant's Hoff's Malt. The incision of abdomen healed by first intention, etc. \* \* \* \*"

"Case V. Mrs. R. Ovarian Cyst. \* \* \* \* There was no vomiting following the operation; first twenty-four hours nothing in the way of drink or food was given except hot water and Tarrant's Hoff's Malt."

**Lumbago.**—A valuable internal remedy:

℞. Ext. Cimicifugæ fl. ....	1 oz.
Celerina [Rio] .....	7 oz.
M. Sig. Teaspoonful every four hours.	

**A Case of Suppressed Menstruation.**—Arthur Rossiter Cobb, M. D., reports the following: R. L., æt. 18 years came to my office with following history, viz.: Although of apparently good physical development, menstruation had never been normal,

but for past three years had occurred at irregular periods of from three to six weeks, flow scanty, and accompanied by intense abdominal pain in the region of the ovaries and tubes; the pain was so severe as to cause, at intervals, for several days, marked attacks of syncope, followed by headache. The case appeared to be one of acute amenorrhœa, and apioline was exhibited, in usual doses, for three weeks, when menstruation occurred. To her surprise and gratification, the discharge was profuse, accompanied with but slight pain, no syncope or subsequent headache. The last two periods have been normal. I am pleased to report the beneficial action of apioline in this obstinate case.

**A New Method of Medication.**—The subject of the employment of animal extracts or tissues in the treatment of disease is exciting very general interest among physicians abroad and in this country.

The cosmopolitan professional circles of England and America are enthusing over the results already obtained with certain of these remedies.

In an article on "The Treatment of Myxœdema and Other Diseases by the Use of Certain Organic Extracts," Dr. Hector N. G. Mackenzie presents in the London *Lancet*, Jan. 21, 1893, an interesting *résumé* of the results he has already obtained with this method of medication.

Dr. W. A. Hammond also contributes to the *New York Medical Journal*, Jan. 28, 1893, a paper under the title, "On Certain Organic Extracts: Their Preparation and Physiological and Therapeutical Effects."

To physicians interested in this new and promising method of relieving certain diseases hitherto unamenable to treatment by other means, Parke, Davis & Co. announce that they are ready to supply two of these medicaments: Desiccated thyroids in powder, representing in permanent form the thyroid gland of the sheep; and cerebrin, prepared after the formula of Dr. Wm. A. Hammond.

It is the purpose of this house, who are the first manufacturing chemists of this country to place these remedies before the medical profession in an eligible form, and who will be pleased to send reprints of Dr. Mackenzie's and Dr. Hammond's articles and afford all desired information concerning the products now announced, to extend their line of this class of products as fast as experience justifies their therapeutical use.

The American Medical Editors' Association will hold its eleventh annual meeting at Milwaukee, June 5 next. Mr. Ernest Hart, the editor of the *British Medical Journal*, will deliver the annual address. A number of interesting papers and discussions will follow. In the evening a banquet will be held.

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## Original Communications.

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THE COMMONER ANIMAL PARASITES OF THE SKIN.\* By A. H.  
OHMANN-DUMESNIL, St. Louis, Mo.

It has been my custom, when giving instructions in the diagnosis of diseases of the skin, to call the attention of students to one point in particular. Before mentioning this more definitely, I will premise by stating that a prominent subjective symptom is, beyond all doubt, itching. It is not only more annoying to the patient, but it also fosters the production of more or less destruction of the upper layers of the integument through the scratching which is indulged in to relieve the irritation. Itching is frequently the only symptom of the trouble, as is the case in pruritus, but the attempts to relieve this produce eruptions which only tend to obscure the diagnosis for those who are not well acquainted with the subject. In addition to this, there is a prevalent idea, that when a patient has an itching eruption, whether it be primary or secondary in character, it must necessarily be eczema, this misconception having originated from the dual fact that eczema is polymorphous in character, and prevails to a very large extent. Nor is this all. Another fallacy which is com-

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\*Read before the Missouri State Medical Association, May, 1893.

mon, and it has unfortunately been fostered by those who should know better, is that syphilitic eruptions never itch; when, as a matter of fact, they frequently do, when occurring in hairy portions. I have alluded to these two affections more particularly because they have an important bearing upon the subject I propose to discuss.

To return to my first proposition. The point to which I especially direct attention is this: Whenever a patient complains of itching of the integument, no matter where this may be felt, always begin your formulation of a diagnosis by a careful search for parasites, either vegetable or animal; and, in case such are found, immediately direct your therapeutic measures to the prompt destruction of these. For it is absolutely necessary to secure a disappearance of these irritants in order to obtain any satisfactory change in a cutaneous disease. Permit such active irritation to remain uncared-for, and it will increase in proportion to the increase in the number of parasites; and, as I will point out later on the multiplication in the case of animal forms, at least, is in a direct geometrical proportion explaining the oft-times almost remarkable multiplication of the little living pests which frequently cause, not only local discomfort, but may even directly endanger a human life through the causation of loss of sleep, the continued maintenance of nervous irritability and consequent derangement of all the functions of the economy leading to perverted nutrition, loss of tone, and susceptibility to general diseases and pathological conditions of a more or less grave nature. We have in addition to this the direct loss of blood occasioned by the withdrawal exercised by the predatory parasites, a source of debility which is added to by the artificial losses caused in the fruitless attempts of the patient to relieve the itching. We have still more to note in this direction—the destructive lesions which are produced in many instances suppurate, and in that manner not only produce a direct loss of tissue, but furthermore may bring mischief in the way of absorption of poisonous or effete products. Finally, the parasites themselves are but too frequently the carriers of micro-organisms, not only on the surface of their bodies, but in the proboscis. For it is a well-known fact, that they feed upon bacteria, and when they drive their delicate pumping apparatus into the skin, in their search for

blood, they propel an alkaline liquid which has the power of liquefying the blood, and thus they convey these organisms into the lymph spaces of their victims. My hearers may remember the report of a recent case of tuberculosis which was traced to bed-bugs, and they are also aware of the claims which have been made, with some show of justice, of mosquitoes being the active propagators of yellow fever.

I do not propose to speak of all the animal parasites which infest the skin, but I intend to take under consideration a few of those which are of more especial interest to the physician. To take a survey of all the animal parasites which irritate the skin would necessitate the compilation of a volume, and would moreover necessitate such a complete survey of the field as would hardly be justifiable under the circumstances. For this reason I will only take into consideration the *acarus scabiei*, the various pediculi, the *pulex irritans*, the *cimex lectularius*, the *ixodes*, and chicken louse. The rarer forms as well as those not so intimately connected with the lesions of the skin will not be considered, in order to keep this paper within the limits assigned to it by the time afforded in its reading.

In the consideration of each of these parasites I propose following a certain plan, which will be about as follows: The salient points of the eruption will be described, inclusive of the portions most frequently affected, followed by a notice of the habitat of the parasites. In conclusion, a description of this latter will be given, together with such information in regard to its natural history as will prove of service to the practitioner as well as of interest to the student. I do not propose to enter into any deep disquisition on the subject, but merely to give the more prominent facts in connection with the subject in the hope that they may, in some small measure, prove of service to those who may consult them.

In addition to the above, a few words on the treatment of the affections caused by the parasites, as well as the methods of destroying them and preventing their recurrence, will not be inappropriate and may, in some measure, also prove of service to those interested in the subject. With these few prefatory remarks, I will begin the consideration of each individual parasite which I have mentioned above.

## SARCOPTES SCABIEI.

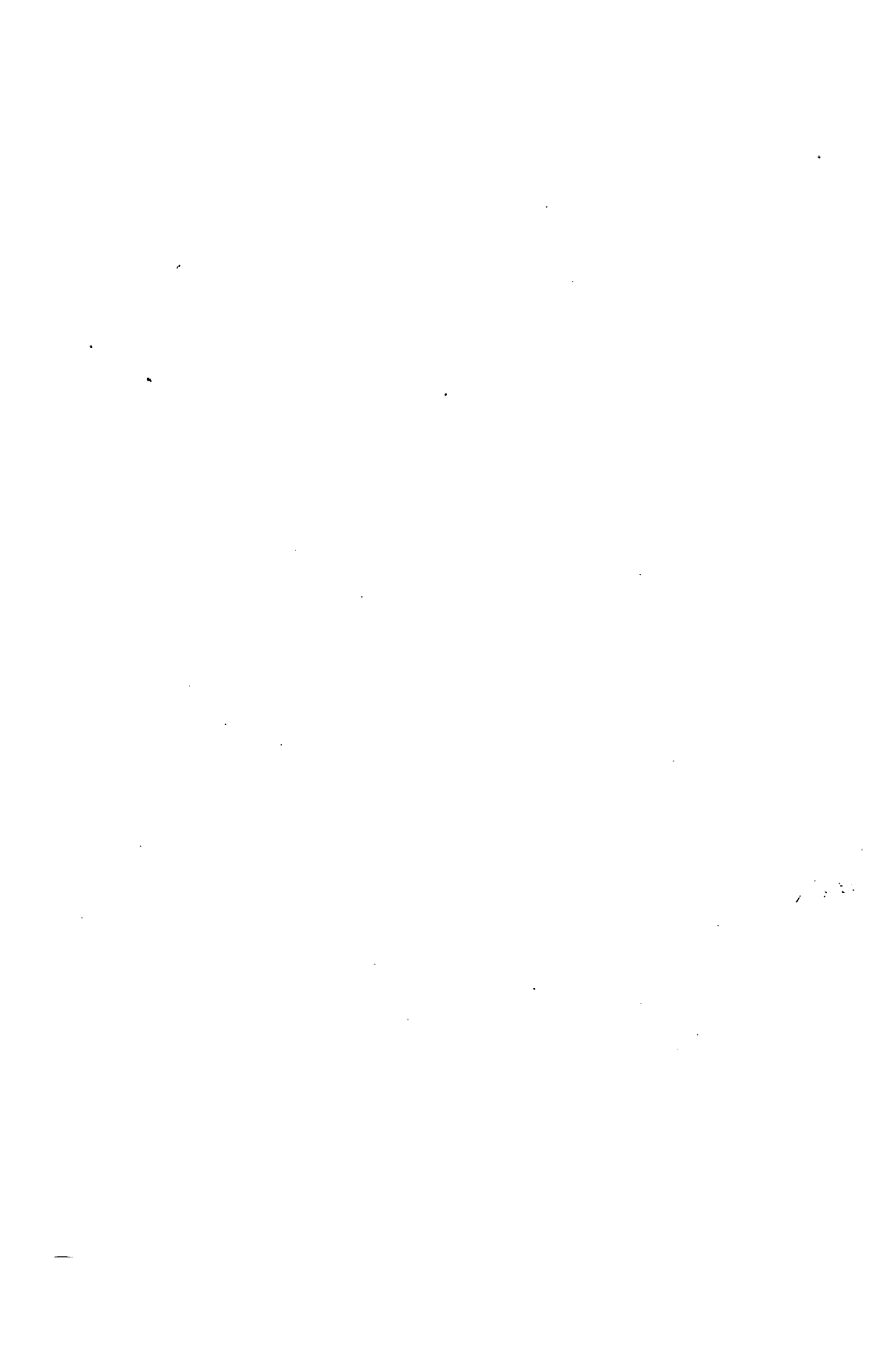
The eruption occasioned by this parasite is beyond doubt the most serious of all the animal parasitic dermatoses which I propose to take into consideration. Whilst limited in its area at its inception, it spreads very rapidly, chiefly through the efforts at scratching by the patient. The typical lesion which is characteristic of the presence of the parasite is a vesicle which is the abiding place of the female, which burrows under the horny layer of the epidermis, whereas the male limits his movements to the surface in search of the female. After fecundation, the female immediately tunnels underneath the upper layer of the skin for the purpose of depositing her ova, which mature as she pursues her way, so that by the time the eggs are laid the first one has already released its tenant. These furrows have the appearance of a small piece of black thread drawn under the skin, the dark appearance being caused by the deposits of excrement made by the female. Such a cuniculus is easily opened, and by the use of a proper magnifying glass the ova may be distinctly made out. The burrowing will easily explain the intense itching of the trouble as well as account for the fact that the flexures of joints, and those portions of the integument which are thinnest, are chosen for the purpose of laying eggs. Add to this the fact that contagion is the method of acquiring the trouble, no difficulty will be experienced in remembering the fact that the skin between the fingers and at the flexures of the wrists is that which is generally affected. The extension of the trouble is easy and secondary lesions soon appear after establishment of the trouble. The vesicles are torn open, the parasite released, the floor of the vesicle is torn as well as the cuniculus, pustules form, papules develop as a result of the lesion, crusts form here and there, and we have finally presented the picture of an inflammatory, polymorphous eruption of an exudative nature, in which the attacks of itching are irregular and intense. So far as the distribution of the lesions is concerned, one general rule may be formulated. The older the affection, the greater the dissemination. After it is once well established, the eruption is most marked in those portions which are most accessible to the scratching fingers. One of the most common accessory causes in the perpetuation of the trouble is filth. An unclean body necessitates scratching to loosen the accumulated epidermal scales and thus indirectly aids in the



**FIG. 59. Sarcoptes Scabiei.**



**FIG. 60. Pediculus Capitis.**



further dissemination of the parasites. Filthy underwear forms a permanent depot for the sarcoptes to lodge in, besides acting as a preventive to the thorough action of any remedial measures which may be undertaken. Fortunately, the better conditions which prevail in this country have done much to lessen the number of cases which, to the uninitiated, is truly appalling in the large continental cities. Yet during the late civil war in the United States scabies was one of the curses with which both armies were afflicted. A peculiarity of scabies is that it does not affect the face or head.

The parasite which causes the disease is known as the *sarcoptes scabiei*. It was formerly called the *acarus scabiei*, from the fact that it belongs to the order acarina, family acaridæ, class arachnoidæ. It is a minute roundish animalcule barely visible to the naked eye, being equal in surface to the cross section of a small pin and pale yellowish in color. The female is much larger than the male, varying in length from  $\frac{1}{4}$ ''' to  $\frac{1}{3}$ ''' and in breadth from  $\frac{1}{8}$ ''' to  $\frac{1}{6}$ '''. The form is somewhat ovalish, the head being closely set to the body and also oval in form. There are no eyes. The thorax is provided with four short, jointed legs, terminating in suckers and bristles. The abdomen is likewise provided with similar legs of equal number. In the female the abdominal legs terminate in bristles, whereas in the male the last pair is also provided with suckers, the other two terminating in bristles. In the male we observe the external genital organ very plainly, whereas in the female there is a cleft visible at the abdominal extremity. When viewed upon its ventral surface there may be distinguished a number of cross striations which are undulating, and here and there small spinous processes from which bristles emerge. The head is provided with strong mandibles, and six hairs project from it. The habitat of the female is in the skin. As soon as it finds itself upon the integument, it begins burrowing to form a cuniculus wherein to lay its eggs. The male roams about on the surface looking for females to fecundate. The young are very hardy and develop very rapidly, the period of incubation varying from eight to ten days. With a little care the female sarcoptes can be extracted as well as the young in various stages. The male is more difficult to obtain, yet a little patient research will generally be rewarded by obtaining a specimen.

application of the remedy to the affected parts so as to reach every point, but also a frequency sufficient to accomplish the purpose completely, and not such as will permit of relapses through the hatching of the undestroyed ova.

#### PEDICULUS CORPORIS.

Pediculosis corporis is an affection which is produced by the pediculus corporis *seu vestimenti*. It is common enough to be seen under circumstances in which masses of individuals congregate, and have no opportunities or inclinations to keep themselves clean. Soldiers who are any length of time in camp, laborers who live in camps, several occupying one tent, the dwellers of tenement houses of the lower class, and similar individuals seem to be infested with the body louse. As a rule, it is adults who are most subject to the trouble, and men more frequently than women. The itching which is present is intolerable, and is most severe about the shoulders and sides of the body, although the limbs and trunks are often the seat of pruritus. The head is never attacked, and this will be immediately explained when we consider that the habitat of the pediculus corporis is the clothing and not the integument. The lesions presented upon the body are almost pathognomic of the trouble, and, when found, should always lead to a careful examination of the clothing worn next to the skin. The objective phenomena which are seen consist of secondary lesions, and these are, for the most part, excoriations of a marked character four to six inches in length, and several in number parallel to each other. They are the result of scratching, and to be found in those portions most accessible to the hands, viz., the scapular regions, the flanks, the buttocks, the outer surfaces of the thighs, etc. The scratching, at times, is so severe as to produce bleeding and consequent crusts. If the trouble be superficial, ulcers will form. The underwear will stick to the denuded patches, and its removal will lead to fresh bleedings accompanied by pain. When a case has progressed thus far the arms will share in the general involvement, and the spectacle presented by a patient thus affected is that of a most miserable being.

Among the modifications observed in the subjective symptoms occurring in pediculosis corporis is the presence of short and jagged scratch marks, due to digging of the nails into the integument. Another condition is seen which should not be hastily



FIG. 59. *Sarcoptes Scabiei*.



FIG. 60. *Pediculus Capitis*.



misjudged. This consists of pigmentation of a light or dark brown color, at first disseminated in macules of varying size. In cases of long standing it may become diffuse and involve the entire integument which has been subjected to the depredation of the parasite.

The *pediculus corporis* is the largest of the *pediculi*. It sometimes attains comparatively enormous proportions and is quite voracious, abstracting the blood of its host quite freely and in amounts that are comparatively large. It is stoutly built, the female being considerably larger than the male. It varies in size from  $\frac{3}{4}$ " to 2" in length, being about one-third as broad. In color it is a dirty-gray which has a reddish tinge after it has abstracted blood. The female is much broader at the abdomen on account of the ova which it must contain. It may be distinguished from the male by the notch which exists at the distal end of the abdomen. This parasite is provided with three strong four-jointed legs, having claws at their extremities and provided with hairs. The abdomen has seven well-defined notches on each side. The head is large and somewhat acorn-shaped, the eyes being quite prominent. The antennæ which are strong, are five-jointed and very mobile. The mandibles are unusually powerful and easily cut the integument of the host. As mentioned above, the parasites live in the seams of the clothing and it is here that the female deposits her ova which hatch in five or six days. It is said that in eighteen days they will reproduce. When the parasite desires food it will roam on the skin, and it is on this account that very few are ever found outside the clothing.

The treatment of this condition is very simple in principle, but it is not such an easy matter to carry out in actual practice. It is to be divided into two parts—the treatment of the patient and that of his clothing. A good bath and destruction of the clothing is certainly not difficult to order, but it cannot be carried out in many instances. What can be done, however, and if it be done thoroughly it will result in success, is to adapt the means to be used to the conditions presented. The treatment of the patient should consist in the application of campho-phenique to the entire affected surface. This remedy kills whatever parasites may be lurking on the skin, and it acts as an antiseptic and vulnerary, promoting a rapid healing of the dermatitis which has been excited by the scratching. Washing

pale in color they frequently escape detection and must be literally scraped off in order to be distinctly seen. When in search of food they range about, most generally through the medium of hairs, although the clothing also acts as a carrier and transports them quite some distance from their original habitat. Occasionally ova are directly transplanted to new quarters by means of the finger nails.

The treatment of pediculosis pubis is not always as easy as some would have us fondly imagine. When the trouble is confined to the pubic region it is not difficult to obtain a successful result; but when it has been disseminated over broad areas it requires care and attention to completely eradicate the little pests. The best method of treating the condition when it affects the eyebrows and eyelashes is to remove the pediculi and their ova with fine forceps. It is not a difficult thing to do and is always radical in its results.

As they are never present in great numbers, very little time is required, and all that is necessary may be done in one short sitting. So far as other parts of the body are concerned, any one of a number of methods may be successfully employed. A method which is very popular, but which is not only filthy but very frequently liable to bring on untoward effects, is the use of mercurial ointment. Other ointments are equally disagreeable to use and should be discarded in view of the fact that more cleanly and agreeable methods are always at hand. Lotions are certainly more desirable, but thoroughness should be observed in their use, not only for each application but for the length of time they are applied. They should be used twice a day for not less than eight days, as this will ensure the destruction of whatever parasites which may have been hatched out during this interval and will furthermore prevent the breeding of a new generation. An easily procurable lotion is a six per cent. aqueous lotion of carbolic acid. One which is of value when no excoriations exist is composed as follows:

R. Hydrag. bichlorid.....gr. iv.  
Aceti aromatic..... $\frac{3}{4}$  vj.

M.

When excoriations or other secondary lesions exist, however, it has been my custom to employ campho-phenique, as it is not only an efficient parasiticide but it also acts beneficially as an antiseptic,

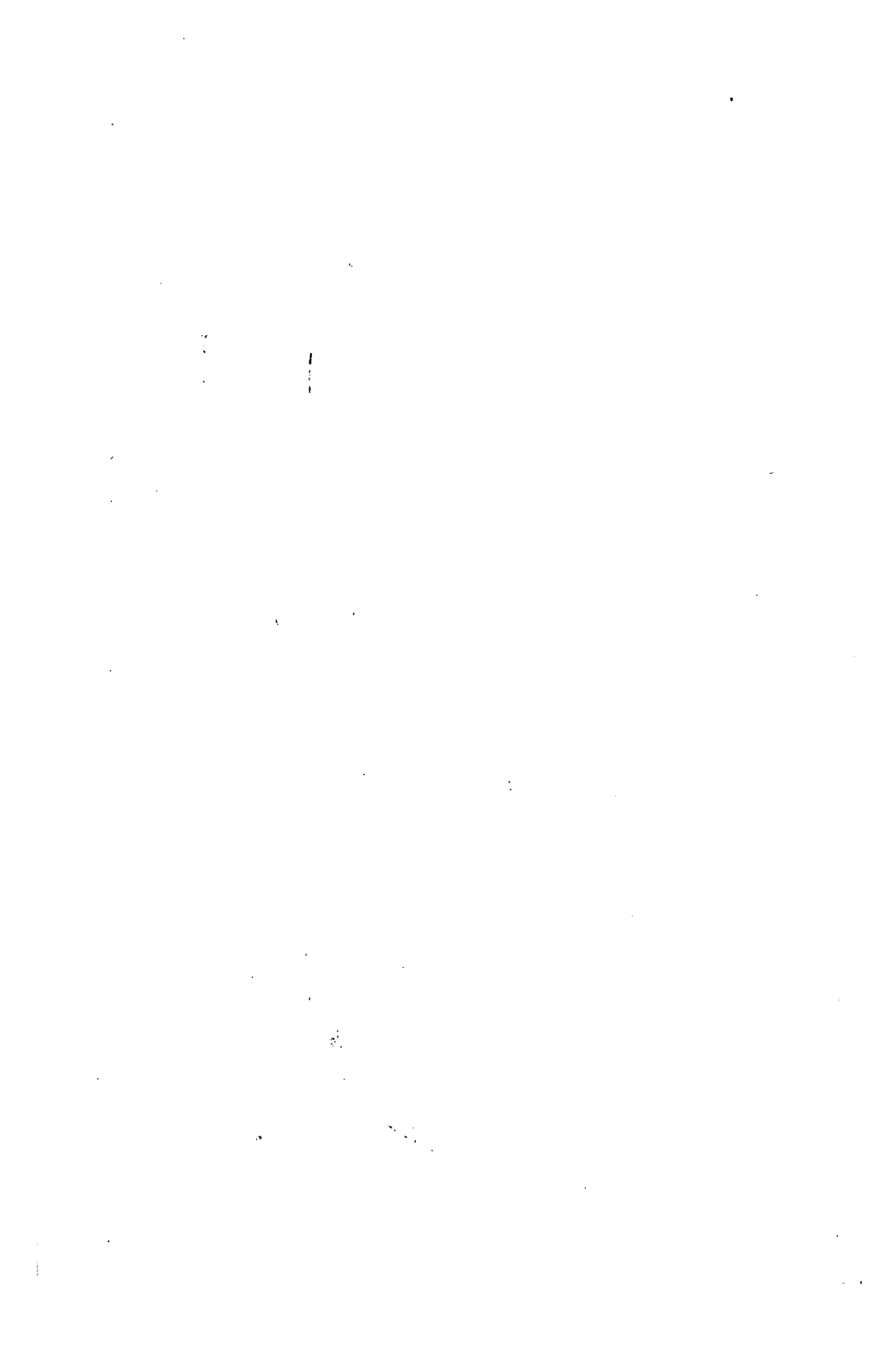




FIG. 63. *Pediculus Pubis*, emerging from Ovum.



FIG. 64. *Pulex Irritans*.

procuring a rapid resolution of the artificial inflammatory process and is unaccompanied by any danger of producing toxic symptoms. Moreover, it acts as an antipruritic and thus fulfills the requirements of an ideal remedy in this condition.

#### PULEX IRRITANS.

The cutaneous trouble occasioned by the *pulex irritans* or common flea is one which frequently gives rise to groundless fears and alarms. The lesions which appear as results of the bites of this parasite are erythematous in character, a number of them appearing like roseola and liable to be mistaken for measles. The lesions may be discrete and few in number or there may be many of them distributed over comparatively a large area of the integument. At the time the flea bites there is a sharp stinging sensation, which gives way in a comparatively short space of time to burning and itching of a rather severe character. If the lesions be numerous these subjective sensations are intensified in character, and the efforts made to subdue them will result in secondary lesions. The diagnosis is not a difficult one to make if the lesions be closely examined. No matter what secondary lesions are present, the primary macules will always exist here and there. Each one of these has a central punctum which is minute in size and darker in color, besides being generally elevated above the general surface of the macule. It is due to a hæmorrhage and the small clot of blood can be distinctly made out with the help of a magnifying glass and can be even removed with the point of a needle. This will serve to distinguish the eruption from the different forms of roseola. Whilst fleas are not essentially human parasites, they seem to have a fondness to adopt the human body for a host, and although not frequently seen in this country they are common enough in the rural districts of Europe, where dogs, cats and human beings herd together in small, close, filthy quarters.

The *pulex irritans* is quite familiar to all who have ever owned cats or dogs. It possesses a large abdomen, small thorax and roundish head provided with small eyes. It is a light brown in color when mounted, but as found when living it is of a marked dark brown and very glossy in appearance. It varies in length from  $\frac{3}{8}$ ''' to  $1\frac{1}{2}$ '''. It has well marked five-jointed antennæ and is provided with six legs. These latter organs are peculiar in that

they are three-jointed, the last joint, however, being terminated by a toe which has five joints and which itself terminates in two claws. This last toe and joint are well provided with bristles, located on the posterior surface. The last pair of legs are much longer and stronger than the two anterior pairs and they are very powerful and muscular, thus enabling the animal to leap and project itself through comparatively long distances. Again, we find that the three pairs of legs are much crowded anteriorly, but folding in such a manner that when the flea is at rest the abdomen is apparently held midway. The animal is quick of movement, not only when it is hopping but also when it is running, which it does upon the slightest indication of danger or disturbance. Its favorite roaming ground is close to the skin, in animals, where it is buried in the thick growth of fine hair. Here it is that it performs its depredations, preferring those regions where the skin is thin, such as at the flexures of the joints. When it attacks the human it generally seeks those regions which are covered by clothing and warm, and never attacks the scalp. The neck is frequently sought by them, in men, perhaps on account of the attraction furnished by the white color of the collar. The *pulex irritans* breeds very rapidly and, so far as I have been able to determine, it deposits its eggs on the skin and they hatch out in about a week.

The treatment of flea-bites is perhaps not so important as the adoption of prophylactic measures. For the former a number of adequate applications may be used, and one of the best perhaps is an aqueous solution of some antipruritic such as the following:

R.	Hydraggyri bichloridi.....	gr. ij.
	Ammon. Muriat .....	gr. iv.
	Acid. carbolic.....	3 ij.
	Glycerini.....	3 ij.
	Aqæ rosæ.....	q. s. ad. 3 vj.

M.

This should be applied several times in the day and a quick recovery will result. But it will scarcely prove efficient unless the skin is freed from the little pest which causes the trouble. To accomplish this the clothing should be carefully removed and exposed to the air, and a carefulness exercised that the fleas will not leap into other articles of clothing. If there be pets about the house see to it that the cats and dogs are freed from parasites, and if they have been acquired from strange animals, avoid them





FIG. 65. *Cimex Lectularius*.



FIG. 66. Chicken Louse.

in the future. To keep animals free from fleas is a most difficult matter, but the parasites may be killed by rubbing in well some pyrethrum powder, which destroys them and is not noxious to the host. Bathing dogs with carbolic soap will rid them of fleas if care be taken to submerge them completely so that the parasites will be carried off in the water. But I do not desire to enter into the subject beyond calling attention to the fact that many cases of flea-bites occur in patients in which the diagnosis must be made from the lesions, as the parasite has long since betaken itself to new fields and cannot be found. It is for this reason that great care should be taken not to mistake flea bites for exanthematous troubles, and vice versa.

#### CIMEX LECTULARIUS.

The cimex lectularius or "bed bug" is almost universally disseminated, and occasions lesions which give rise to considerable alarm, and which are frequently wrongly interpreted, this being one of their peculiarities. The parasite occasions much discomfort by its bite, and it requires a certain amount of attention to make a proper discrimination. The most severe lesions are found in those who have the most tender skins, and the subjective symptoms also vary in proportion to this factor. In infants and children, more especially, the lesions are apt to take on an inflammatory appearance, whereas in adults who have particularly resisting integuments scarcely any perceptible objective symptom is to be seen. On the other hand, those whose skins are most susceptible are conscious of a sharp pain with a slight dull aching sensation following, the pruritus not being so severe as those whose epidermis is thick, and in whom the itching occasioned by the bite of the parasite is intolerable. The particular lesion caused is a small circumscribed œdema with a minute central punctum, which is hæmorrhagic. The lesions are of the size of the small finger nail or even smaller, and resemble the wheals of urticaria with the exception of the outer erythematous zone. In the bite of the bed-bug they are white, and furthermore are more persistent. In any case, the pruritus excited lends to the formation of secondary lesions brought on by the scratching. Any portion of the body may be the seat of the eruption, although, as a general rule, the hands, wrists, feet, ankles and face are those most frequently involved, as they are the most accessible locali-

ties. It is no uncommon thing to be awakened out of a sound sleep by a pruritus of such an intense nature as to deprive the subject of rest, and a close inspection will reveal a cimex as the cause of the trouble. The constant subjection to the irritation nightly is very apt to bring on a train of nervous symptoms, and reflex excitability which may be incorrectly interpreted unless the true cause be discovered.

The cimex lectularius, acanthia lectularia, or common bed-bug, is probably one of the best known animal parasites which attacks the human being. Its geographical distribution is almost universal, the varieties found in the tropics being much larger than those encountered in temperate zones. When fasting the cimex is flat, of a yellowish-red color, and varying in length from 1" to 2". When glutted with blood it has a distinct red color, and is appreciably enlarged by the blood which it contains. It is unusually tenacious of life, being able to exist for protracted periods of time without food. When it has an opportunity, however, it is gluttonous. It has a penetrating odor, disagreeable in the extreme, although compared to cinnamon by some. The parasite has a large abdomen, a small thorax, and a diamond-shaped head, the eyes being fairly large and prominent; two antennæ, which are four-jointed and very mobile, project anteriorly. There exist three pairs of legs, three-jointed in character, and terminating in a single claw. The body is provided with a number of bristles, none, however, being perceptible on the legs. The female proliferates not only frequently, but large broods are the result. The young as soon as hatched begin their depredations, and as they are often not larger than a very small pin's head they frequently escape detection, although the odor reveals their presence. The habitat of the bed-bug is in the cracks of the wood of bedsteads, in the bed-clothes, under wall-paper, in old books, in fact wherever a small chink or crack can afford them a hiding place. They are not infrequently found in the clothing, having wandered there from the cracks of clothes-presses or wardrobes. As a rule, the bed-bug attacks his host when the latter is asleep, and the attacks of the parasite are always fierce. The irritation produced is not only caused by the direct wound inflicted, but by the injection of an acid fluid which is intended to prevent the coagulation of the blood as it is drawn. It is for this reason that micro-organisms are apt to be injected by the parasite into

lymphatic spaces, and thus infection be produced without any very clear cause for it.

The treatment for the cutaneous trouble caused by the cimex is usually a simple one so far as allaying the symptoms is concerned. Dilute alkalies, vinegar, alcohol, whisky, etc., are the more commonly recognized domestic remedies. It is best, however, to use a dilute solution of bichloride of mercury, as it will not only cause the disappearance of the symptoms, but will act as an antiseptic, and prevent any possible phlegmonous complications. Campho-phenique will do the same thing, and possesses an added advantage in being an anæsthetic. Treatment may be deemed superfluous when one or two small lesions exist, but when an infant is affected from head to foot it becomes a matter of some moment, as the result of such an extensive cutaneous irritation may take on a serious character. It is also for this reason that care should be exercised not to mistake the trouble for irritation or some exanthem. The principle thing to do, however, is to get rid of the "bugs." This is not such an easy matter as it might seem, as every housekeeper will testify to. To rid furniture of bed-bugs is possibly yet a problem, for the females deposit their ova in minute cracks which are difficult to reach with parasitocides. Mercurial preparations are probably the best for this purpose, and yet they are fraught with some danger to those sleeping in the bed so treated. Moreover, whilst the bedstead may be clean the seams of the mattresses will be found teeming with these pests, and a thorough and careful search for, and destruction of them seems to be an almost hopeless and interminable piece of work. The only thorough method, perhaps, is to have everything new, and to live in quarters free of the cimex.

#### DERMANYSSUS AVIUM.

The eruption caused by this parasite is rarely, if ever, seen in cities, although it is not of unusual occurrence in the country. It produces an eruption most often upon the dorsum of the hands, about the wrists and forearms, although other portions of the body are liable to be attacked. The attack generally begins with itching, which is soon followed by an eruption more or less diffused, and which may be erythematous and papular, or mixed, vesicles and wheals making their appearance. It is seen in those who come in contact with domestic fowls, and the parasite is

ordinarily derived from the chicken-house. The trouble is often very annoying, and aggravation is by no means uncommon from repeated exposure to the cause. Women and children suffer more severely from this cause than men on account of the greater delicacy of their skin. The peculiar localization of the eruption, together with its strict limitation, should immediately arouse suspicion, more especially when observed in those whose duties cause them to frequent chicken-houses or aviaries.

The *dermanyssus avium*, or chicken louse, as it is more commonly known, is a familiar parasite to those who raise chickens, and it is an enemy whose destruction is constantly sought on account of its fatal effects on poultry. It is about 1" long and perhaps one-third as broad. It is rather pale in color. Its abdomen is quite long in proportion to the entire body and its head is somewhat mushroom-shaped and provided with two rather small but distinct eyes. It has no antennæ, but is provided with powerful mandibles. It has three pairs of three-jointed legs which, like the body, are not provided with bristles. This parasite is very prolific and voracious, attacking not only common fowl but pigeons and other domesticated birds, and extending its depredations even to quadrupeds. It is chiefly found in the woodwork of houses, where it issues at night to feast upon the sleeping fowl. A number, however, will remain on their host, and it is chiefly in the flexures of the joints and upon the neck that they are to be found. Young birds will not infrequently die of the exhaustion induced from the drain of blood, and the older ones become emaciated.

The treatment of the eruption caused by the chicken louse is a very simple one, consisting of the application of a three per cent. solution of carbolic acid, which rapidly allays all the symptoms. To prevent recurrences the infested chickens and their quarters should be avoided. If this avoidance cannot be effected, attention should then be turned to the fowl and their habitation. For the former the use of carbolized oil, pyrethrum powder or dilute oil of orris will effectually rid them of the parasites. The building in which they are kept can be rid of the parasites by washing with a solution of some strong alkali, such as common lye, and it is better, after this has been done, to thoroughly whitewash the structure within and without, having previously isolated the fowl and destroyed their parasites. Occasionally in the human

the parasite will be found upon the skin, but it does not seem to thrive upon the integument of man and it quickly disappears.

#### IXODES AMERICANUS.

The lesions occasioned by this parasite are of the most acute character and may result quite seriously. The subjective sensations are of a painful, burning nature, whilst the lesions are of an inflammatory character. When observed it will seem as if the parasite is embedded in the skin, and surrounding the part in which it is buried there is a bright red areola with occasionally a small wheal. If the parasite is torn away a portion remains behind and a slight phlegmonous process results, generally leading to suppuration and final resolution. The genital region seems to be particularly affected, although the lower limbs are also attacked to quite a considerable degree. The trunk and upper extremities are also subject to the depredations of this troublesome parasite. Males are more subject than females on account of their outdoor life and occupations.

The *Ixodes Americanus* (*amblyoma Americanum*) or wood-tick, as it is ordinarily known, is about the size of the *cimex lectularius* and has the same general form. It is red in color and has a rather small head and distinct, small eyes. The variety most commonly encountered has a white spot situated about the center of the back. It is provided with three pairs of three-jointed legs provided with a single claw. The most prominent feature is the powerful suction apparatus which it possesses. This consists of three divergent, sharp, trunks, which are brought close together, driven into the skin, and then separated, thus giving a hold which will not relax. The efforts made to remove the tick result in tearing off the body, and thus leaving the embedded portion to act as a foreign body on the skin. The tick does not limit its depredations to the human being, but attacks all quadrupeds upon whom it can secure a hold. It seems to be most plentiful in dead leaves, rotten wood, and vegetable matter undergoing dry decay. It is quite prolific, and individuals travel together in great numbers, so that is not rare for several hundred to fasten themselves upon one host. So far as the treatment of the condition caused by this parasite is concerned, it is a very simple matter. To get rid of the parasites it is merely necessary to apply olive oil liberally wherever they are to be

found. The action of the oil is two-fold—it causes the ticks to fall out and acts as a soothing remedy to the wounds they have produced. If they have already been torn off, a mixture of equal parts of olive oil and campho-phenique will act very satisfactorily; so will carbolized oil of a strength of about two per cent. As regards prophylaxis, it is well nigh impossible to attain. Oil of pennyroyal and other essential oils will not prevent ticks from attacking the skin. It may keep off a certain number, but individuals are so voracious that after a tramp through the woods they will be found and their locality will not be difficult to establish. The only prophylactic that is certain is to avoid the localities where they hold forth.

I do not propose delaying with any more parasites of an animal nature which infest the human skin. This would be an almost endless task, as the list is very large. A few which might be mentioned are the chigoe or chigger, the *leptus autumnalis*, the *filaria Medinensis* or guinea-worm, the screw-worm, etc. The tropics have their peculiar animal parasites, which are numerous and produce serious lesions, so serious that they even may be fatal in their effects. Suffice it to say, that those which I have given are the ones most commonly met with in our latitudes, and sufficiently numerous to satisfy any ordinary demand in that direction.

For the benefit of those who may be desirous of prosecuting their studies still further in this direction, I append a list of a few monographs devoted to the subject of animal parasites which infest the skin.

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This embraces but a very small proportion of the books and monographs devoted to single animal parasites or to the entire subject, but it is sufficiently extensive for all practical purposes.

Before concluding, I desire to express my thanks to Dr. A. S. Barnes, Jr., for help in making some of the microphotographs appended to this article.

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**The International Congress of Charities, Correction and Philanthropy** will be held in Chicago, June 12, 1893, under the World's Congress Auxillary. It includes four sections, one of which, under the chairmanship of Dr. John S. Billings, is devoted to the hospital care of the sick, the training of nurses, dispensary work, and first aid to the injured.

AN EXPERIMENTAL INVESTIGATION OF THE LAW BY WHICH  
ACETANILID REDUCES ANIMAL HEAT. By DR. A. D. BARR,  
Calamine, Arkansas.

Acetanilid in the system becomes a vapor, and leaves the body principally, if not altogether, through the skin and lungs in the form of vapor. It becomes re-crystallized on the surface of the body in sufficient amount to be recognized by the unaided eye. It can be found by microscopical examination of the sweat for several hours after its administration. After ascertaining these facts, I conducted an experiment to ascertain, if possible, the *law* governing the action of acetanilid. It becomes dissolved in the proportion of two grains to the ounce of water at the temperature of 100° F., and owing to its remarkable tendency to return to the crystalline state, it yields up the water that holds it in solution immediately on being brought to the surface, thus increasing evaporation.

This can be seen by placing a saturated solution in an open vessel, around the sides and at the top of which the acetanilid, on coming in contact with the vessel, can only yield the water up to the air, which it must do before it can assume the crystalline state. This it does, and is therefore found crystallized on the side of the containing vessel; or if a small portion of some light substance be placed on the water it will adhere to it and assume the crystalline state. It never crystallizes in the water below its surface unless the solution was saturated at a very high temperature; then crystallization will take place in the solution if its temperature is reduced. A solution saturated at 100° F. can be reduced as low as 72° F., and probably much lower, without crystallization taking place in the solution.

The remarkable tendency of acetanilid to assume the crystalline state, and thereby increase evaporation, is to be explained by the molecules of water having very feeble attraction over the molecules of acetanilid, compared to that of its own and other solids when in solution. During the solution of acetanilid heat disappears to again become sensible when it again assumes the crystalline form. This heat is what produces the increase of surface temperature after the administration of a sufficient amount to reduce the temperature of the body that is experienced immediately before perspiration begins. In some cases where the temperature is excessively high, and the surface dry and

parched, acetanilid will not reduce the temperature to any considerable degree. This is because the function of the skin has been so far suspended that it cannot transmit aqueous vapor.

Acetanilid becomes fluid at a temperature of 235.4° F., and is slowly converted into vapor when its temperature is raised a few degrees above its melting point. But the heat of the body is never sufficient to evaporate it except when held in solution in aqueous vapor.

The statement that acetanilid leaves the body in the form of vapor requires to be qualified, for it does not itself leave to any considerable degree in the form of vapor, but it so increases the amount of aqueous vapor exhaled from the skin that it soon accumulates in the *sudoriferous* glands and on the surface of the body in the form of sweat, and thus it leaves the body with the sweat, and can be recognized under the microscope on the evaporation of the watery portion of the sweat. To enter more explicitly into the action of acetanilid in reducing temperature, the law governing its action in the system is the same as that governing its action when in solution out of the body; and all the power it has to reduce temperature is in virtue of its power to surrender up the water that holds it in solution, and to again assume the crystalline form. Therefore, when acetanilid enters the circulation it is in solution, and during its circulation through the large arteries it cannot surrender the water that holds it in solution, but as it passes through the capillary circulation it is brought into contact with the external atmosphere through the medium of the *sudoriferous* glands, and it immediately tends to assume the crystalline form, and before it can do so it must yield up the water that holds it in solution; thus the evaporation of water from the surface of the body is increased. The evaporation soon becomes so great that the entire surface of the body is bathed in perspiration, and the perspiration being connected, so to speak, with the capillary circulation through the medium of the *sudoriferous* glands acetanilid passes out of the circulation held in solution.

Seven and a half ounces of water is required to hold in solution fifteen grains of acetanilid, and from experimental evidence I have ascertained that it must yield up the same amount when held in solution before it can again assume the crystalline state. From this evidence the conclusion is reached that a definite

amount of water is required to be evaporated for acetanilid, when held in solution, to become crystallized; and a definite amount of heat being required to evaporate a definite amount of water, the number of degrees a given dose of acetanilid will reduce the body temperature can be calculated, provided the function of the skin be not so far changed that it cannot transmit aqueous vapor. In such cases it will only reduce the temperature in proportion to the evaporation it produces. As a high degree of heat is required to convert acetanilid into a liquid, and as a high degree of heat favors evaporation, it follows that when the temperature of the body is high the effect of acetanilid will cause a much more speedy evaporation of watery vapor, and consequently a greater reduction of the body temperature than it does when the temperature of the body is of a less degree, though the amount of heat required to eliminate it from the body is the same. This is why acetanilid administered when the temperature of the body is normal does not produce so great a fall, but the temperature remains depressed for a greater length of time.

To eliminate from the system one grain of acetanilid the evaporation of half an ounce of water is required, which is equal to thirty-one and one-fourth heat units. In order to understand how much a given amount of acetanilid will reduce the temperature, it is necessary to know the number of heat units contained in the body; which, for a body weighing one hundred and fifty pounds, is 7,650 when the temperature is 100° F. To understand this more perfectly, take, for example, a body weighing one hundred and fifty pounds whose temperature is 105° F. To reduce his temperature to 98½° F., 497½ heat units must be used up or converted into latent heat; and as acetanilid has the power of rendering 36½ heat units latent per grain, it will require 13.717 grains to render latent 497½ heat units, or to reduce the temperature from 105° F. to 98½° F.

When acetanilid is administered in very large doses the temperature will often fall as low as 95° F., and it may remain this low for several hours. The explanation of this is the fact, that after the temperature is reduced to so low a degree, heat, being the form of energy that carries on all the functions, the force of the body being so low, all the functions become weak, the heart being depressed; and as it is from the surface that aqueous vapor is given off, and as it is the capillary circulation of the skin that

is most depressed, it being the most remote from center of circulation, thus evaporation is decreased and the fall of temperature prevented from going much lower, though it remains at this degree till all the acetanilid is eliminated from the system.

While engaged in this investigation I had the opportunity of seeing a case of poisoning by acetanilid. I could not ascertain the amount taken, but from the data obtainable I judged that twenty-five or thirty grains were taken. The person was a stout adult female, aged between forty-five and fifty years, weighing about one hundred and forty or fifty pounds. After taking the drug she lay down and slept for about an hour. After waking she ate, then worked at house cleaning for three or four hours, then rode horseback a mile and a half. When she reached home she stated that she "could scarcely walk to the house," which was some fifteen yards. I saw her some seven or eight hours after taking the drug. Heart's action was weak, skin cyanosed, moist and felt cold, temperature 95° F. Recovery took place without any treatment worthy of mention. In fact, the disagreeable symptoms were passing off before treatment was begun.

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PROGNOSTIC APHORISMS. (From the French of Dr. Gabriel Reignier.) Translated by CHAS. EVERETT WARREN, M. D., Boston, Mass.

TYPHOID FEVER.

1. The intensity of typhoid fever is directly proportionate to the age and constitution of the patient.
2. If the maximum temperature is reached on the third or fourth day the fever will be of long duration and ataxic character.
3. An amphibolic state is characteristic of severe cases. This term refers to an oscillation of temperature between 104° and 106° from morning to evening; a long continuation of the exacerbation adds to the peril.
4. Moral emotions greatly predispose to the ataxic form and consequently influence mortality.
5. The epidemic factor rules the situation, and is the factor of the first importance in prognosis.
6. Intense delirium at the beginning, concurrent with convulsions, coma and deep stupor, indicates beyond question a fatal termination.

7. Hurried respiration, at the onset of the fever, when no pulmonary or cardiac affections pre-exist to explain the complications, presage death.

8. Utter indifference, fear of death, vascular injection of the conjunctiva, a dull expression and perverted senses, conjointly with marked adynamia, are usually fatal portents.

9. Excessive somnolence and coma are almost always followed by death.

10. Muscular twitching of the eyelids, the eye, the nostrils and the lips accompany the gravest cases.

11. Tendinous twitching, involuntary movement of the arms and hands, and picking at the bed-clothes, forerun a fatal issue. Death will follow in nineteen out of twenty cases.

12. A black, trembling, cracked tongue is an ominous augury.

13. Sacral ulcers, meteorism, dysphagia, involuntary defecation or urination or retention, form a group of fatal symptoms.

14. When the pulse is above 120 and irregular there is slight hope of a favorable termination.

15. Dryness of the skin is a bad symptom.

16. During the decline of typhoid fever, if intense abdominal pains suddenly set in with enfeebled pulse, chills, drawn features and bloated abdomen, the patient will be lost within twenty-four hours at the shortest, and forty-eight hours at the longest.

17. Facial erysipelas, intense pulmonary congestion, and œdema of the larynx are complications of grave import.

18. Adynamic forms are the most fatal.

19. If after fifteen days the complications are aggravated, look out for a long sickness, often fatal.

20. Pregnancy is an unfavorable concomitant.

21. Purulent resorption is an aggravating circumstance.

22. Cyanosis looks "blue."

23. In children of two to three years diarrhœa of continued duration means danger.

24. In children permanent retraction of the abdomen, with high fever and loss of sensibility and intelligence, constitute symptoms of grave portent.

25. Convulsions are almost always significant of fatality.

26. Parotiditis is a serious symptom.

27. Excessive dyspnœa at the outset with epistaxis is a sign of serious portent.

28. After a long duration of the disease the patient who buries under the bed-clothes and slips to the bottom of the bed by the force of his own unresisted weight is lost.

29. Intestinal hæmorrhage supervening in the course of a typhoid affection, accompanied with primary depression suddenly announced by irregular pulse and a true circulatory ataxia announces a condition but little short of desperation.

#### VARIOLA.

30. Variola very grave in portent in the newly born, is more so in the aged.

31. Variola in a pregnant woman almost always incites and induces abortion.

32. Delirium persisting to the fourth day of the eruption is a doubtful symptom.

33. If you don't want death to end the scene, watch the 11th to the 14th day in confluent variola; the eighth or ninth in discrete.

34. When variola is accompanied, at the outset, with violent lumbar pains, intense cephalalgia and prolonged chills, with trembling of the feet and hands, marked dyspnœa and other ataxic phenomena, look out for trouble.

35. Cases of hæmorrhagic variola are registered by death.

36. Pale bluish vesicles, slightly distended or depressed, as it were, filled with sanguinolent matter, irregular in eruption, on the fifth to sixth day, presage a bad issue.

37. In confluent variola, if bloating of the face does not succeed swelling of the feet and hands, death is to be expected in ninety-nine cases out of a hundred.

38. In confluent variola, deep coma, twitching of the tendons and delirium are terribly suggestive. Few escape the fatal end.

39. Beware of an uncontrollable diarrhœa continuing to the eighth or tenth day. If it is not replaced by swelling of the extremities the situation is desperate.

40. In abnormal secondary variola, the eighth day is the fatal one in infants.

41. Hæmorrhagic varioloid is not as serious as variola of the same type.

42. In discrete variola suppression of perspiration accompanied with general ataxia is generally fatal.

43. Alcoholism adds to the gravity of this affection.

44. A continually elevated temperature is a sign of great danger.

45. Cardiac paresis—fatty degeneration of the myocardium—presages imminent death.

#### SCARLET FEVER.

46. Dyspnoea without any pulmonary lesion is a sinister omen.

47. Copious diarrhoea, uncontrollable from the onset, accompanied with bilious vomiting, gives ground for great fear as to adults.

48. Scarlatina of the hæmorrhagic type during the first days is invariably fatal.

49. Diphtheria complicating scarlatina up to the ninth day takes away hope.

50. The complications often constitute the whole peril of scarlatina.

51. Angina and coryza are dangerous portents.

52. So is gangrene of the mouth and inflammation of the brain and meninges.

53. Carphology, jactitation, coma and convulsions during the first or second day, in infants, indicate malignancy and great danger.

54. Death is almost inevitable when these signs occur concurrently with a general œdema.

55. The gravity of scarlatina is in direct proportion to the confluence of the eruption.

56. When the pulse varies from 130 to 160 a fatal termination is to be feared.

57. Never forget that in this insidious fever myocarditis of the syncopal form, œdema of the glottis, or ataxic lesions, may carry off the patient when all else has pointed favorably.

58. Nothing could be worse than the association of scarlatina with the puerperal state.

59. Suppuration of the joints is a lesion fraught with danger.

60. Purulent pleurisy is often fatal in adults, but less so in children.

61. In children, if the eruption does not appear within three to five days, the danger increases with the delay.

62. Delirium, agitation and coma are serious omens in the young, and if conjoined with muscular contractions, paralyses, and convulsions presage inevitable death.

63. In every age locomotive lesions are more serious in portent than intellectual aberrations.

64. The ataxic, typhoidal type is more serious than the adynamic.

65. Irregular scarlatina of the simple secondary type often terminates with unpleasant and unforeseen complications.

66. Paleness of the skin and slight eruptions are bad signs.

67. The same applies to an intensely exaggerated violet eruption.

68. Extensive purulent cervical engorgements are of dangerous portent.

69. Scarlatina in an infant at the breast seriously menaces life.

70. Before death there is a marked pale and lined cast of the forehead and chin.

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SYMPHYSEOTOMY.\* By DR. BYRON STANTON, Cincinnati, Ohio.

Dr. Stanton said that this operation was one of recent adoption, though not of recent origin. Great mortality attended its performance in former times, while at present it has almost complete exemption from danger when proper antiseptic precautions are observed and where no complications have arisen from too long delay of attempts at extraction. This operation is destined to take the place of embryotomy and Cæsarean section in many cases, and supplants the induction of premature labor in frequent instances. The operation causes but little pain but should be done under an anæsthetic. Repair is speedy, consolidation in from three to four weeks being the rule.

All diameters of the pelvis are increased by symphyseotomy and the result with due precautions does not affect consolidation of the pelvis or subsequent walking powers of the patient. The operation is applicable to sacro-coccygeal deformities and to normal pelvis where there is unusual size of fetus. According to most authorities 77 mm (3 in.) is the extreme to which the pubic bones should be separated, although some operators have gone considerably beyond this limit. For successful results in symphyseotomy the best sanitary conditions should exist. The operation

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\*Abstract of a paper read before the Cincinnati Obstetrical Society, March 16, 1893

must not be deferred until shock or exhaustion increases the danger. After preparations are carefully made as for laparotomy, the incision is made from one and one-half to three inches. A female catheter is passed into the urethra: with this as a guide the knife is passed until its extremity projects under and in front of the symphysis. The knife generally used is that devised by Galbiati, a sickle-shaped, probe-pointed bistoury with a thick strong blade. The metacarpal saw has been used but is objectionable, as one death has resulted from its use. The wound is covered with iodoform gauze 1: 4,000 and delivery effected naturally or with instruments, or by version. After delivery the wound is closed with sterilized ligature silk, silk worm gut, and protected by antiseptic measures. A tight binder or other means is used to secure fixation of the pubic bones. The sutures may be removed in six days; the patient should be kept in bed until consolidation is complete. She should have frequent bichloride vaginal douches.

There have been thirteen operations in the United States in three and a half months. With proper care and a favorable case there should be no death other than will occur occasionally in a parturient woman. The revival of symphyseotomy is stated to be the most important advance in obstetric surgery since the general adoption of abdominal section for the treatment of extra-uterine pregnancy.

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**The Danger in Ice.**—We find the following editorial comment in the *National Druggist*: It is time, in the face of a threatened invasion of the cholera, that our health authorities were making some efforts toward the examination of the ice supply of cities, and the prohibition of the use of natural ice taken from contaminated ponds and rivers, in all cases where the liquid in which it is used is intended for human use. The idea that water gets rid of its impurities on freezing has long since been exploded among well-informed persons, but still prevails among the multitude. Recent investigations carefully carried out show that ice retains 34.3 per cent. of the organic and 21.2 per cent. of the inorganic matter contained in the water of which it is made. Of course there is no harm in using such ice for all refrigerating purposes, where it does not come in direct contact with food or drink, as, for instance, in freezing ice cream, etc., but it is utterly unfit for bar-room use, or to be put in water-coolers, as is ordinarily done.

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## The Earlier Editors of the St. Louis Medical and Surgical Journal.

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### VI.—E. DEMING.

Of this gentleman the only traces left are his name among the list of editors on the title page of the JOURNAL in 1854 and 1855, and a short obituary notice of him in the JOURNAL of March, 1855. Diligent inquiry and search have failed to discover a portrait of him, or any facts connected with his life save the following:

Dr. Deming was born in Massachusetts in 1797. On graduation in June, 1819, he came west and settled at Marietta, O. Here he remained until 1833, practicing his profession and attaining local eminence. That year he removed to Lafayette, Ind., where he continued to reside until his death, which occurred February 23, 1855. While continuing his residence at Lafayette, Dr. Deming accepted in 1853 the chair of Pathological Anatomy and Clinical Medicine in the Medical Department of the University of Missouri, which necessitated his spending his winters in St. Louis.

During the short time that he was in St. Louis (only about ten months altogether) Dr. Deming made many friends, and his work as a teacher of medicine was such as to promise a brilliant future—as we read in the JOURNAL of the date quoted, “he fulfilled the duties of his chair with credit to himself and great satisfaction to those with whom he was associated.”

From those now living with whom he was associated, or those who graduated under him, but little can be learned concerning him, save that he was a man of excellent fundamental education, bright talents and exalted moral character, a man of high ideals and an original thinker. As a physician, at his home in Lafayette none stood higher.

What part Dr. Deming played as co-editor of the JOURNAL we have been unable to ascertain. We find no article bearing his name or initials, but we have reason to believe that the excellent summaries of articles from the medical press of the world on clinical medicine and morbid phenomena were from his pen.

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### Dermatology and Genito-Urinary Diseases.

**Lichen Scrofulosorum.**—Darier (*Ann. de Derm. et de Syph.*) has investigated the histology of a case of lichen scrofulosorum. He finds that the affection has an anatomical lesion, an especial perifolliculitis, the lesions being those common to tuberculous affections. In the few sections at his disposal he was not able to show the presence of bacilli; but he refers to a case of Jacobi, in which Koch's bacilli were found.

**Gonorrhœal Rheumatism.**—R. Stanziale (*Gazz. d. Osp.*) made the following observations on a case of gonorrhœal arthritis: Cultures made from the exudation drawn from the joint, with all precautions as to the asepticity of the instruments, showed no sign of growth. The effusion was purely sero-fibrinous, and not at all puriform. The ordinary staining agents, like the culture media, failed to show any bacterial elements either in it or in the blood drawn from the neighborhood of the affected joint. Further, inoculations with the exudation also gave negative results both in animals and in the human subject. The latter fact was ascertained by introducing some of the exudation deep into the urethra,

and allowing it to remain there for several hours. The report states that no inconvenience whatever resulted. Stanziale therefore agrees with the majority of observers in asserting the absence of specific toxins from the effusion of gonorrhœal rheumatism.

**Alumnol.**—M. Chotzen (*Berl. Klin. Woch.*) has investigated the therapeutic action of alumnol, a substance discovered by Filehne, of Breslau. Alumnol is an aluminol salt, which contains about fifteen per cent. silver and five per cent. aluminium. It is a fine white powder, very soluble in water, in glycerine, and in warm alcohol. It is insoluble in ether. Heinz and Leibrecht have already reported on its physiological action, and have shown it to be a harmless, odorless, and antiseptic astringent. The author has used it in more than 300 cases. It was found curative, when applied pure, to soft chancres and abscesses, mixed in the proportion of ten to twenty per cent.; with inert powders in balanitis, erosions, moist eczemas, etc. One to five per cent. solutions were used in moist and papular eczemas, acne of the face, boils, and urethritis. Two and a half to ten per cent. solution in alcohol was used for the treatment of eczema, urticaria, sycosis, favus, psoriasis of the head and face; and two and a half, five, ten, and twenty per cent. lanolin ointment for eczema, seborrhœa capitis, psoriasis, and favus. Alumnol varnishes were used in papular and squamous eczemas. It was found that alumnol was efficacious in acute superficial inflammatory affections of the skin, as well as in chronic processes in which the inflammation was deeper; and in parasitic diseases (under which head the author includes erysipelas, favus, lupus, soft chancre, erosions, and gonorrhœa); and in acute and chronic inflammations of the mucous membrane.

**Urinary Tuberculosis of Genitals.**—Hunermann (*Archiv f. Gynäk.*) reports the following case: A woman, aged 25, and of healthy family, was normally delivered in 1886. In November, 1890, began her second pregnancy. She had, up till that date, felt well and menstruated regularly. Sacral pains set in early in January, 1891, and her health became impaired. On March 11th she aborted. Her temperature rose to 101° two hours later, and in a few days she was very ill. On March 18th there was acute pulmonary catarrh, cyanosis, and evidence of peritonitis. Some foetid solid material was removed from the

uterine cavity by aid of the curette. The temperature was over 105°, and the pulse 132. All the symptoms of acute miliary tuberculosis set in; the ankle-joints were involved, the respiration very labored. The patient died on March 27th. Both tubes and the endometrium were the seat of broken-down caseous tubercle. There was miliary tubercle in the inflamed peritoneum, and the lungs and diaphragm were studded with quite recent miliary deposits. The liver, spleen, and kidneys were similarly involved. Death was therefore due to acute miliary tuberculosis, associated with septic peritonitis, and the primary focus of the tubercle lay in the internal organs. The disease was recent, even in the tubes, probably not older than six or eight weeks. There was no evidence of gonorrhœal infection, nor was the husband tuberculous. Schellong relates a case where acute miliary tuberculosis and general tuberculous peritonitis occurred in child-bed, and was traced to old tuberculous disease of the right tube.

**Iodide of Potassium in Psoriasis.**—In 1887 Haslund (*Archiv f. Derm. und Syph.*) published a paper on the treatment of psoriasis by large doses of iodide of potassium, in which he showed that the disease was usually curable by that drug when administered in sufficient quantities; and also, what is perhaps still more remarkable, that with most people much larger doses of the drug can be borne than had been previously imagined. He began the treatment by giving two grammes of iodide daily, rapidly increasing the daily dose to ten grammes. He then increased the dose daily by two grammes more, until he frequently attained the enormous dose of forty grammes daily, in one case, indeed, giving as much as fifty grammes a day. These remarkable results were confirmed by Gutterlings, who reported (*Vichow's and Hirsch's Jahresbericht f. 1889*), twenty-two cases cured by daily doses of from forty-four to fifty-seven grammes. Similar results were obtained by Molesnes (*ibid.*, 1889, i. p. 377), who surpassed even Haslund's doses. The treatment was not uniformly without accident. In one case symptoms of poisoning occurred with a maximum dose of thirty grammes; in another case maniacal symptoms supervened; danger of poisoning was found to be greater in elderly people. Ehlers (*ibid.*, 1890, i. p. 384) found that the symptoms of iodism were due to defective elimination. In all cases in which the elimination of iodide was

under fifty per cent. symptoms of iodism appeared; but ceased as soon as elimination was established. Defective elimination has been found to take place in feverish conditions, in dilatation of the stomach, in diseases of the kidneys, and organic affections of the heart. Elimination of iodine is very slow in newborn infants. In ordinary cases it is completed on the second day after the dose is taken, but with newborn infants it is not completed under from three to eight days. More recently Hillebrand (*Archiv. f. Derm. u. Syph.*) published the results of some observations especially in connection with the period of elimination. He shows by an analysis of Haslund's tables that in children the cure of potassium requires a longer time, and that relatively larger quantities of iodide of potassium are necessary than in adults. He injected subcutaneously in children and adults doses of a uniform solution, and in other cases administered the drug internally, and examined the urine for iodine. The results of observations of this kind in nineteen patients showed that the period of elimination was prolonged in proportion to the age of the patient. In children, with the exception of newborn infants, when the same doses were given as to adults, elimination lasted practically the same time, whilst with elderly people elimination was considerably prolonged. The investigation shows that with these large doses considerable caution is required both in children and in elderly persons.

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### Excerpts from Russian and Polish Literature.

**Salicylic Acid as an Anthelmintic.**—In the *Nowiny Lekarskie*, March 1893, p. 105, Dr. Ozegowski (pron.—Ozegovskee, a polish name) describes twenty consecutive cases of tape-worms in which he resorted to the following plan of treatment. After fasting for a day the patient is given thirty grammes of castor-oil at bed time. On the next morning, about 7 o'clock, he swallows another dose (15 grammes) of the oil, and an hour later takes one gramme of salicylic acid, the dose being repeated hourly until the noon. In such cases where the parasite still lingers in its abode, a third dose (15 grammes) of castor-oil is administered. The treatment proved successful in nineteen out of the author's twenty cases.

**Discoloration of the Skin in Acute Febrile Diseases.**—In the *Vratch*, No. 14, 1893, p. 407, Dr. Alexander A. Kisel, house physician to St. Olga's Hospital for children, in Moscow, draws attention to a "brownish-icteric" discoloration of the face (cheeks, near the nose), palms and soles which is observed in enteric fever, typhus, croupous pneumonia, and malarial fevers. In many cases the phenomenon makes its appearance during a fairly early stage of a febrile attack, and is accompanied by an icteric discoloration of the urine and (sometimes) sclerotics. In some severe cases of typhoid the discoloration of the skin disappears before the onset of defervescence. At all events, such "whitening" of the patient is said to constitute a favorable sign. Dr. Kisel never yet happened to come across the discoloration in acute meningitis, or influenza, or, in fact, any other acute febrile disease, except the four mentioned above.

[In the *Meditzina*, No. 6, 1893, Dr. Vladimir V. Filipovitch, of Odessa, has published a paper in which he asserts that a "yellow" discoloration of palms and soles occurs only in typhoid patients, and hence is of an utmost importance in diagnostic regards. This thesis, however, has been quickly refuted by Drs. I. V. Tchepürkowsky and T. I. Rüdenko, of Tiflis, who point out (*Vratch*, No. 12, 1893, p. 357) that a "lemon-yellow" discoloration of palms and soles does occur not only in enteric fever, but also in all cases of typhus, and in some cases of croupous pneumonia. The discoloration usually appears toward the termination of febrile process, and is most pronounced during a few first days of convalescence. Its intensity varies in a strict accordance with the intensity and duration of disease, and with the degree of the patient's emaciation.—*Reporter*.]

**Heat in Asiatic Cholera.**—In the *Saratovsky Sanitarnyi Obzor*, Nos. 21, 22, 23 and 24, 1893, p. 608, Dr. Zviaghintzeff points out that "warming the patient's body constitutes a vital indication in the management of Asiatic cholera cases." After some experimentation during the last epidemic, the author (who was practising in villages) succeeded to devise the following simple, easy and cheap method which perfectly answers to all intentions and purposes. He orders them to gather a large quantity of the ordinary wormwood (*Artemisia Absinthium*; Russ. *polyn*, thriving in abundance all over the country), and to make a score

or two of broom-like bundles thereof. On the other hand, he takes a canvass bed curtain (which can be obtained almost in every peasant hut), or a bed sheet, and wraps up the patient therein, taking care to make numerous folds, or a kind of bed for receiving the wormwood bundles. The latter are successively dipped in hot water and placed between the folds. As soon as a bundle cools down to a marked degree, it is replaced by another just taken out from hot water, etc. In other words, the patient is constantly kept under a sort of hot general poultice.

[Heating the body in cholera was also recommended by Drs. A. D. Stepanoff (*Vide the Provincial Medical Journal*, October, 1892, p. 549), V. V. Podvysotsky (*ibid*, November, p. 607), Mierzynski *ib.*, December, p. 664), E. S. Vakhovitch (*ib.*, February, 1893, p. 106), etc.—*Reporter*.]

**Treatment of Asiatic Cholera.**—Dr. A. A. Volansky, of Kaslinsky Zavod, Ural Russia, publishes a report (*Transactions of the Ural Medical Society*, 1893, Vol. I, p. 49) on a local epidemic of cholera (125 registered cases with fifty-two deaths; and about 250 non-registered or incipient ones, all ending in recovery) in which he describes, amongst other things, his experience of various methods of treatment of the “formidable Asiatic guest.” The essential points may be briefly stated somewhat as follows:

I. *Initial stage* (initial diarrhoea and sickness). As a rule, it was treated with opium in combination with nux vomica and peppermint, the following formula being used:

℞ Tincture opii simplicis, *Ph. Ross.*  
Tincturæ nucis vomicæ  
Tincturæ menthæ piperitæ āā

M. D. S. To take from 15 to 18 drops, thrice daily; to an adult.

In the said non-registered cases the drops were the only remedy resorted to, all the patients rapidly recovering. In a majority of registered cases the patient was first given a ten-grain dose of calomel, which usually inhibited diarrhoea for from three to five hours. Then there appeared one or two stools of a green color, after which diarrhoea either ceased altogether, or re-appeared in a mitigated form. In the latter case the opium drops were at once prescribed, the patient usually making a quick and good recovery. About the end of the epidemic Dr. Volansky tried in ten cases a salol treatment, nine patients recovering within forty-eight hours, and only one succumbing. The drug was administered internally,

the daily dose amounting to eight grammes in the first twenty-four hours, and to four in the next. All children were treated by calomel, given in the dose one-quarter grain every two hours.

II. *Algid stage.* Intestinal antiseptic drugs (calomel one-half grain every two hours; or salol, three or four grammes daily) proved entirely useless. The following purely symptomatic measures gave comparatively best results: an internal administration of brandy, hot strong tea, ethereal tincture of valerian, ice (against vomiting; cocaine and iodine were found inefficacious); rubbing the whole body with alcohol, or turpentine-oil; hot poultices to the abdomen, and warmly wrapping the limbs.

III. *Stage of reaction* was also treated symptomatically, viz.: by stimulants (for failure of the pulse), hot enemata with tannic acid (for persisting diarrhœa), internal administration of salicylate of bismuth, ten grains three times daily (for diarrhœa), application of ice to the head (for delirium, etc.)

Dr. Volansky emphasizes that "his experience clearly shows how very unjust is a theoretical opposition against the use of opium in treatment of Asiatic cholera."

[Of Russian "opponents" of the kind we may mention Professor Pavlovsky, of Kiev (*Vide the Epitome of Current Medical Literature*, Sept. 10, 1892, p. 43), and Drs. Daniloff (see the SAINT LOUIS MEDICAL AND SURGICAL JOURNAL, December, 1892, p. 367), and Vakhovitch (*Provincial Medical Journal*, February, 1893, p. 106). The latter says thus: "The use of any opiates in Asiatic cholera is not only utterly void of any scientific sense, but is absolutely injurious, and must be once and for all thrown out from the therapy of the disease. Opium tends to inhibit the elimination of comma bacilli from the intestines, and *co ipso* favors the accumulation and absorption of the fatal toxic. Besides the drug tends to increase depression of the nervous system and cerebral congestion, induced by the toxic products." Nevertheless, opium continues—and, very likely, will continue for some time to come—to play an important part in the modern treatment of cholera. *Vide* the papers by Dr. Shtcherbakoff in the SAINT LOUIS MEDICAL AND SURGICAL JOURNAL, October, 1892; Napalkoff, *ibid*, April, 1893, p. 255; Prof. Eichhorst, of Zuerich, *Provincial Medical Journal*, Nov., 1892, p. 606; V. V. Sokoloff, *ibid*, January, 1893, p. 49; Prof. Biermer, *ib.*, February, p. 107; Prof. N. I. Sokoloff, *ib.*, March, p. 161; and others.

Salol was successfully employed in cholera by Dr. Luebomüdroff (*Epitome of Current Medical Literature*, Sept. 10, 1892, p. 43); Mitropolsky (*ibid*, October, p. 56); Kahn (ST. LOUIS MEDICAL AND SURGICAL JOURNAL, March, 1893, p. 165); Volkovitch (*ib.*, p. 166), etc.

Calomel was recently recommended by Prof. Pavlovsky (*loc. cit.*); Zdekauer (*Provincial Medical Journal*, Sept., 1892, p. 496); Mansüroff (*ib.*, October, p. 549), Volovsky (*ib.*), Mierzynski (*ibid*, December, p. 665), etc.—*Reporter*].

**Treatment of the Deciduous Umbilical Cord in the New Born.**—Professor Ivan M. Lvoff, of Kazan (*Likhatchevsky Lying-in Hospital Reports for 1892*, p. 93), says that the following method gives best results in his hands: Immediately after the first bath (which the infant receives shortly after its birth) the umbilical stump is thoroughly dried with a piece of hygroscopic cotton wool and subsequently wrapped in a compress, made of the same material and soaked in pure glycerine, after which a gauze abdominal bandage is applied. The dressing is left alone with the separation of the funis. Then the baby receives its second bath and the umbilical wound is powdered with a mixture of subnitrate of bismuth and iodoform (in equal parts). Having tried his method in 400 cases, Dr. Lvoff has come to the conclusion that:

1. In an overwhelming majority of cases the funis falls off in from four to six days. Only in some exceptional instances the separation may be delayed until the seventh or eighth day.

2. The stump invariably undergoes the process of genuine mummification, which is due to powerful hygroscopic properties of pure glycerine.

3. After the detachment of the stump there is left an even raw surface which never shows any signs of irritation.

4. The wound heals steadily and very quickly.

[Dr. Alexei P. Artemieff, the director of the Olginsky Povivalnyi Institiit (School for Midwives) in Tiflis, Caucasian Russia, gives the following instructions in his "*Rükoroditel Povivalnoi Babki* (The Midwife's Vademecum)," 1892, Briänsk, pp. 88 and 156: 1, wrap the umbilical stump in a piece of hygroscopic cotton wool; 2, cover it with a layer of soft gauze and two thin layers of ordinary cotton-wool; 3, fix the whole with a roller bandage; 4, leave the dressing undisturbed until the sixth day,

when the parts should be subjected to a gentle examination; 5, be the stump found already detached, the umbilical wound must be covered with a fresh layer of hygroscopic cotton-wool, and again bandaged; 6, be the funis still adherent, powder it with a mixture of five grains of salicylic acid and one-half ounce of starch; 7, no general baths should be made until two days after the separation of the stump, the baby's face and lower part of the body being to be cleansed by washing. *Cft.* instructive papers on the important subject published by Professor N. F. Miller and S. S. Koolmogoroff, of Moscow (*Sei-I-Kwai Medical Journal*, February, 1889, p. 35, and March, p. 51), and Drs. Tagonsky (*ibid*, p. 49), and Godlewski (*Provincial Medical Journal*, October, 1891, p. 620). The latter (a Polish practitioner) has undertaken a long series of careful comparative experiments on various methods, and found that Professor V. V. Sütüghin's plan is decidedly the best of all yet devised. According to Dr. Sütüghin's instructions (published in K. L. Ricker's *Medical Calendar for 1892*, Vol. II., p. 87; and in Dr. K. Kh. Inoëvs's *Golitzynsky Lying-in Hospital Reports for 1891*, p. 51), the stump should be washed out with a two per cent. solution of boracic acid, then dried with a piece of salicylic cotton-wool and powdered either with pure gypsum, or gypsum with boracic acid (eight parts of the former to one of the acid), after which the funis is wrapped in a thin layer of hygroscopic cotton-wool, and a gauze bandage applied.—*Reporter*.]

VALEBIUS IDELSON, M. D.

Berne, Switzerland.

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**Drivers as Doctors.**—From what we are told it would appear that the drivers of the police ambulances must consider themselves skilled nurses or trained surgeons. When a physician wishes a patient removed to one of the hospitals and telephones his desires to police headquarters, in due time the ambulance arrives. Immediately the driver and attendant proceed to convey the sick from the house to the wagon and thence to the hospital. Some of these patients are extremely, dangerously ill, and yet no medical man is about to render assistance. This should not be so. The police authorities should either send a physician with the ambulance, or, better still, appointment should be made with the attending physician to be present at the removal.

## Medical Progress.

### THERAPEUTICS.

**Treatment of Acute Inflammatory Fevers.**—The season just ended has been called a “pneumonia winter” and even a “grippe winter,” but the latter mysterious condition, though quite prevalent in certain localities, seems this time to have been endemic rather than epidemic. No one, by the way, has said much about rheumatism this year, but the hospital reports show an unusual number of cases. The treatment of croupous and other pneumonias has consisted in the administration of an antipyretic, and anodyne and heart tonic. For the first two conditions phenacetine was most largely employed. Strychnine was used as a cardiac supporter. The treatment of influenza was much the same, with the addition of small doses of quinine and pulv. Doveri. It was found advantageous to unite salophen to the phenacetine, to combat the “aching pains” of the limbs. The rheumatic cases appear to have been especially benefitted by the use of salophen and bicarbonate of soda, adding phenacetine when the pains were severe or the temperature too high.

**How to Give a Fomentation.**—Doubtless every physician knows how to apply a fomentation, yet the following suggestions may be of value to some one (*Jour. Bact.*): A flannel cloth may be folded, wrung out of hot water, and applied directly to the skin; nevertheless, it is much better, after wringing out the flannel as dry as desired, to fold it in a dry flannel cloth of one or two thicknesses before applying it to the patient. A little time is required for the heat of the fomentation to penetrate the dry flannel, and thus the skin is allowed an opportunity to acquire tolerance for the heat, and a greater degree of temperature can be borne than if the moist cloth is brought directly in contact with the surface. The outer fold of dry flannel will also serve to keep the cloth warm by preventing evaporation.

A fomentation is sometimes needed when no hot water is at hand. It is not necessary to wait for water to be heated in the usual way. Soak the flannel in cold water, wring as dry as desired, fold in a newspaper, and lay upon the stove or wrap it about the stovepipe. In a few minutes it will be as warm as the patient can bear. The paper keeps the pipe from becoming

moistened by the wet flannel, and at the same time prevents the flannel from being soiled by contact with the pipe.

Fomentations thoroughly applied will relieve most of the local pains for which liniments, lotions and poultices are generally applied, and are greatly to be preferred to these remedies, since they are cleaner and aid nature more effectually in restoring the injured parts to a sound condition.

**Cod-Liver Oil for Infants.**—In the course of an article on this subject (*Doctor of Hyg.*), Dr. Cyrus Edson says: Decreased vitality from almost any cause is remedied by the administration of fat in the form of cod-liver oil, and the list of diseased conditions in which the oil is serviceable is a long one, and includes consumption, scrofula, chronic dysentery, chlorosis, rickets, skin diseases, rheumatism, chronic bronchitis, epilepsy, and so forth. Persons with these diseases and with wasting diseases generally require a fatty diet. For growing children a diet comprising fat is essential. If they do not get it their muscles grow flabby and their skin loses its firmness.

It is interesting to know that cod-liver oil differs from other fats in that it contains various biliary principles, which, of course, are derived from its source, the liver of the cod. But it also contains traces of iodine, bromine, phosphorus, sulphuric and phosphoric acids, lime, magnesia, soda and iron.

The objection generally advanced against the use of cod-liver oil is its nauseous taste. This has been removed by the art of the pharmacist and chemist, who have succeeded in making the oil palatable and even pleasant. This is not all that has been done, however, by these experts. By artificially emulsionizing the oil, *i. e.*, by imitating nature's operation in the digestive processes, they have produced a preparation that is very easily digested and assimilated even by the most delicate stomachs. Nor is this all. By combining the oil with the hypophosphites of lime and soda they add greatly to its value as a constructive food.

Exactly how these hypophosphites act when taken into the system we do not know, but we do know that they prevent waste of the tissues and that they promote what we call constructive tissue metamorphosis. This effect makes a given amount of food do a maximum amount of work. The best emulsion of cod-liver oil is, in my opinion, that prepared by Scott & Bowne, and

known as Scott's Emulsion. This preparation I have found to be a carefully prepared emulsion of the best oil, combined with the hypophosphites of lime and soda. The dose for an infant should at first be very small, say from a quarter to half a teaspoonful after feeding, for a babe of three to six months, and not given oftener than four times daily. Gradually this amount may be increased until the child takes a half teaspoonful six times in twenty-four hours.

The effect of the oil on the bowels should be carefully noted and the dose regulated by the number of movements, their character, and the amount of oil contained in them.

**Treatment of Myxœdema.**—Vermehren (*Deut. med. Woch.*) relates a typical case of myxœdema in a woman, aged 42, who was treated by Professor Howitz in the beginning of 1892 by feeding with thyroid gland. Four lobes of lightly cooked calf's thyroid were given daily. There was great improvement in the course of three weeks. Slight relapses occurred after she was discharged, but they disappeared rapidly under the same treatment. During the treatment there were slight stenocardiac attacks, which necessitated its temporary suspension. Two other cases have since been similarly treated by Howitz with good results. The author then records a case of sporadic cretinism in a woman, aged 29, treated with success by the administration of thyroïdin. This substance is obtained as a greyish powder by the precipitation with alcohol of a glycerine extract of the finely chopped and pounded-up gland. It was given in doses of 10 to 30 cg., the total amount taken being 4.25 g. The swelling in the face, trunk, and especially in the hands, diminished. The mental condition improved. Fine hair began to grow in the axillæ and over the pubes. As to the diagnosis, the author says that there was no doubt the disease began in early childhood, and corresponded to the picture of infantile myxœdema. He refers to another case still under treatment which promises to give a similarly successful result.—Laache (*ibid*) also reports a case in a man, aged 49, successfully treated by feeding with thyroid gland. The patient presented the characteristic symptoms of the disease. At first the remedy was taken in the form of a glycerine extract, or after it had been cooked, and salt and bouillon added. Later the fresh gland, finely cut up and seasoned with

salt and pepper, was used. At the commencement the thyroid gland of the sheep was employed, but afterwards that of the calf. The patient was discharged well at the end of three months, but was recommended to take a dose of thyroid gland from time to time. Some unfavorable symptoms also appeared during the treatment, perhaps due to the doses being too large. They disappeared when the treatment was suspended. The author says that the only explanation of the good effects of the treatment is that of specific substitution.

**The Proteolytic Action of Papoid.**—Prof. Chittenden, of Yale, writes upon this subject at quite some length (*Diet. and Hygien. Gaz.*). He says, among other things, that the juice of the papaw has long been known to possess the power of dissolving and digesting proteid matter. At one time, this peculiarity was looked upon as something quite unique, but in recent years other like ferments have been discovered in the vegetable world, and to-day several proteolytic ferments of vegetable origin are more or less widely known. Curiously enough there is nearly always associated with the proteid-dissolving ferment, a rennet-like ferment, just as we find the two ferments associated in animal secretions. Thus, in gastric juice, pepsin and rennin are close allies and companions, and similarly in the papaw a proteolytic ferment and rennet-like ferment are associated either in the form of a single substance endowed with the two functions, or more probably as two closely related enzymes.

Papoid, a preparation from the papaw plant, has the power of digesting to a greater or less extent all forms of proteid or albuminous matter, whether coagulated or uncoagulated. Furthermore, papoid is peculiar in that its proteid-dissolving power is manifested in a neutral, acid and alkaline medium. To be sure, the proteolytic power of the ferment is not quantitatively the same under the above three distinct conditions, but it is plainly manifest in acid and alkaline solutions, as well as in a neutral fluid, provided of course the percentage of acid or alkali is not too large. With coagulated proteids, as cooked beef proteid, the highest digestive power is obtained in the presence of two to four per cent. sodium bicarbonate. The relative ferment action in the presence of acids and alkalies is well exhibited in a series of experiments with coagulated beef proteids.

The mere fact that papoid exerts a certain amount of solvent action on proteids does not necessarily imply a true digestive action akin to that of the ordinary digestive ferments. As is well known, the latter agents exert their solvent action by virtue of certain chemical changes they induce, as a result of which new and for the most part soluble products result, of which the proteoses, or albumoses, and peptone are the principal representatives. It is to be presumed, however, that papoid acts in a similar manner. Indeed, Martin long ago pointed out that the proteolytic ferment of papaw juice, acting on blood-fibrin, formed large quantities of peptone, together with leucin and tyrosin, as products of its digestive action. Such experiments as I have tried bearing on this point clearly show that the proteid-dissolving power of papoid is due to a genuine ferment action, whereby soluble products are formed, which, so far as ordinary chemical reactions show, are closely akin to or identical with, those formed in gastric and pancreatic digestion. Leucin and tyrosin are likewise formed, thus showing in another way the resemblance of this ferment to the trypsin of the pancreatic juice.

#### PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

**Diabetes Mellitus after Extirpation of the Pancreas.**—Minkowski (*Centralbl. für allgem. Pathologie*) has endeavored to ascertain whether the diabetes mellitus which supervenes in dogs after extirpation of the pancreas can be prevented by transplantation of a small portion of the gland to some part of the abdominal cavity. This experiment is justified by the observation that diabetes does not appear when portions of the pancreas are accidentally left behind in the operation for removal. Dogs rendered diabetic by removal of this organ succumb readily to operation. The proposed experiment was therefore conducted thus: A healthy dog was selected, and from the tail of the pancreas a portion, connected with the body merely by a vascular stalk, was cut off and fixed to the peritoneum of the abdominal wall and also to the skin, a fistula being established. Having assured himself that no atrophy of the transplanted portion had taken place, Minkowski next extirpated the remainder of the pancreas. The dog remained free from diabetes. The disease appeared, however, when the transplanted portion was removed or when the vessels supplying it were ligatured.

**New Mode of Demonstrating Microbes which do not Stain by Gram's Method.**—Nicolle (*Ann. de l'Inst. Pasteur*) describes a method of demonstrating some bacteria which are otherwise difficult to differentiate. The method depends on the property possessed by tannin of converting methylene blue fixed in the preparations into an insoluble form. The method of procedure is as follows: The sections are hardened in alcohol, and stained for two or three minutes in Loeffler's or Kuhne's blue; they are then washed in water, after which they are passed through a 1-10 solution of tannin, the action of which is almost instantaneous; the sections are then washed again in water, dehydrated, cleared in oil of cloves or bergamot, and mounted in xylol-balsam. A greater contrast can be obtained between microbes and tissues if the sections, after being stained, are slightly decolorized by immersion in a feebly acid water. The histological elements are thereby more decolorized than the bacteria. In this manner the author has succeeded in obtaining excellent results in sections of glanders, typhoid, hog cholera, chicken cholera, soft chancre, etc., a thing which is by no means easy when the old methods are employed.

**Beri-Beri.**—Max F. Simon (*Lancet*) attributes death in beri-beri to the following causes, stating them in the order of their frequency: 1, heart failure from peripheral paralysis of its special nerves; 2, suffocation from congestion and œdema of the lungs; 3, pericardial effusion. Paralyzes of the diaphragm, *per se*, he does not regard as likely to cause death, as he has seen cases in which this condition was pronounced recovery. Heart paresis is indicated by a quick, weak pulse, increased præcordial dullness, and a marked fall of body temperature, pulmonary congestion and œdema—when not complicated by heart paresis—by the hard pulse of arterial tension. Both conditions, but particularly that associated with high arterial tension, are markedly relieved by nitro-glycerine, which, freely but judiciously employed, may tide the patient over for a day or two, and until the natural tendency to recovery in this disease has had time to assert itself. In the sudden suffocative attacks he gives five to ten drops of a one per cent. solution of nitro-glycerine, repeating it, but in diminished dose, every fifteen or thirty minutes, according to the indications supplied by the patient's condition, and until the

paroxysm passes over. He states that Dr. von Tunzelmann, in cases of cardiac paresis, has employed with success hypodermic injection of digitalin along with the application of external heat.

**Romberg's Symptom.**—Grasset (*Arch. de Neurol.*) maintains that this symptom is not due to impairment of the muscular sense, nor to plantar anæsthesia. As proof that it may occur when both these sensory defects are absent he relates the case of a man, aged 31, whose duties required him to walk thirty kilometers daily through a mountainous district. The patient had been subject to headache since childhood; syphilis and alcoholism were excluded from his history, but he inherited a neurotic taint—his father suffered from migraine, his mother was very nervous. After carrying on his arduous occupation for a considerable time, the patient became ataxic. The first symptom noticed by him was a feeling of constriction at the lower part of the chest; three or four days later he lost the power of co-ordination in his legs. The author found typical ataxic gait, Romberg's symptom, bilateral absence of knee-jerk, slightly impaired action of the detrusor urinæ; pupils acted with light and during accommodation; no myosis; muscular sense normal; when recumbent he could accurately adjust the movements of his legs. Gait was not made worse by interposition of a screen between his eyes and feet, but closure of the eyes instantly produced loss of equilibration. Diplopia and vertigo sometimes occurred. No defect of cutaneous sensibility. The rapid evolution of the ataxy in this case, and the preservation of sensibility, indicated a divergence from the classic form of tabes. As regards etiology, over-exertion seemed to be the determining factor. The author further remarks that Erb and others have noted the occurrence of Romberg's sign without concomitant objective evidence of impaired sensibility. On the other hand, the symptom may be absent when the muscular sense is lessened or abolished, or when plantar anæsthesia exists, as has been demonstrated in cases of hysteria.

#### **The Struggle Between the Organism and the Microbe.**

—Sanarelli (*Ann. de l'Inst. Pasteur*) discusses the means by which the organism is defended against microbes after vaccination and during recovery. He studied the vaccinal immunity produced against the disease caused by vibrio Metschnikovi. At the outset he shows that this immunity cannot be due to any

bactericidal property, to any attenuating power, nor yet to any antitoxic power possessed by the body fluids of the vaccinated animal, for he finds that the serum of vaccinated animals possesses no bactericidal power as maintained by Behring and Nissen, and the microbes grown in such serum increase rather than diminish in virulence. Further, the serum of vaccinated animals possesses no antitoxic properties; microbes developing in such serum actually produce more active toxins than when they are grown in ordinary nutrient media. Having eliminated these three possible causes of vaccinal immunity, he proceeds to show that the preventive and therapeutic properties of this serum depend upon the power possessed by it of causing active phagocytosis. The microbes are engulfed by phagocytes, and enclosed in these they retain their vitality for a considerable time. He believes that although remaining alive at the seat of inoculation, these microbes produce no toxins after being enclosed in the phagocytes, for the blood-serum of such animals is not capable of destroying the toxins if they were elaborated. He finds that marked leucocytosis occurs in vaccinated animals, and in those treated by therapeutic serum, but the leucocytes undergo a most remarkable diminution in other cases. This he connects with the chemiotactic relations between the serum and the phagocytes. Preventive serum does not influence the diseased organism by any action on the bacteria, but by stimulating the proper cells to activity, thereby causing a concourse of phagocytes at the seat of inoculation. When this concourse of phagocytes is prevented, as by exposure to cold, the preventive serum has no effect and death results.

#### DISEASES OF WOMEN AND CHILDREN.

**Micro-organisms in the Milk of Healthy Lying-in Women.**—Palleske (*Virchow's Archiv.*) concludes, as the result of a series of researches, that micro-organisms are to be found in the milk of many healthy women—possibly fifty per cent. These germs belong to the cocci, and solely, as far as Palleske has himself determined, to the variety known as *staphylococcus pyogenes albus*. It is doubted whether the germ reaches the mammary gland through the blood current, or enters the ducts from without. It is certain that the *staphylococcus* may actually abound

in milk fresh from the mammary gland without the simultaneous or consequent occurrence of inflamed breast or general symptoms of fever.

**Painful Pregnancies and Subinvolution.**—Their prevention is given by Dr. Wm. F. Kier: The busy practitioner is constantly impressed with the fact that the habit of life of the average woman in the direction of constipation, improper clothing, tight lacing, over-strained nerves, and undeveloped, flabby muscular system, tends toward pelvic congestion and plastic exudations in the reproductive organs, inducing a class of lesions, such as metritis, metrorrhagia, ovarian neuralgia, pelvic cellulitis, as well as being the direct cause of painful pregnancies, after-pains and subinvolution.

Have we had a handy remedy, easy of administration, which will assist us in anticipating and preventing these evils? According to my experience we have. It is "Ponca Compound," furnished to us in tablet form, each tablet containing:

R. Ext. Ponca.....	3 grs.
Ext. Mitchella Repens.....	1 gr.
Caulophyllin.....	$\frac{1}{4}$ gr.
Helonin.....	$\frac{1}{2}$ gr.
Viburnin.....	$\frac{1}{8}$ gr.

It commended itself to me some years since, and each year's success has confirmed the correctness of my early conclusions, so that after extensive clinical experience I am convinced that it exercises a specific alterative action on the uterine tissues, a general tonic influence on the pelvic organs; that it has a tendency to absorb plastic deposits, to regulate the vascular supply, to relieve congestion, to encourage peristalsis of the bowels, and to remove spasmodic conditions.

In fact, we have in the Ponca Compound that which is uniform, portable, convenient, reliable and agreeable, indeed—"a definite chemical compound."

I confidently commend it to my co-workers of the medical profession.

**Complete Inversion of Uterus from Weight of Submucous Fibroid.**—Gottschalk (*Centrbl. f. Gynäk.*) observed this case in an unmarried woman, who had experienced no disease of the pelvic viscera till she was 60, when, after ten years cessation

of the catamenia, hæmorrhages came on. For six months a mass presented at the vulva, and became foetid, breaking down freely. The patient's health failed rapidly. On examination, cystocele was detected; the mass was a gangrenous fibroid, adherent by a broad base to the fundus of the inverted uterus, and of the size of a foetal head. Supracervical amputation of the uterus was performed, the parts being divided from without inwards and downwards, so that enough peritoneum was left to sew over the stump of the cervix. Some submucous growths had first to be enucleated, and the elastic ligature was applied, as the patient was sinking from anæmia. No antiseptics were used, and the operation was performed very quickly. The patient was never thoroughly under the anæsthetic. Recovery was complete.

**Breech Presentation: Cephalic Version.**—Tarnier (*Journ. des Sages Femmes*, November 16th) reports a case which serves as a warning against cephalic version in most cases of breech presentation. The patient had been admitted with a breech presentation; on palpation no part of the extremities could be reached. As extraction is difficult when one foot cannot be seized, Tarnier decided to perform cephalic version by the external method. This task being undertaken with the assistance of Tissier, the vagina was then explored, when it was discovered that the head indeed presented, but a hand had prolapsed. A little later the cord prolapsed as well. Under the circumstances the first complication was perhaps fortunate, as it involved some protection to the cord; on the other hand, the membranes had ruptured, a condition endangering the cord. Tarnier gave orders on leaving the ward that the cord should be watched, and if there were any fear for the child, that the cord should be reduced and the labor ended artificially. He admitted that it would have been better not to have turned. A recent breech case in the same ward had done well; one foot was brought down after the os had become thoroughly dilated, and the child was saved.

**Fatty Uterus; Removal.**—Dr. J. N. Martin reports the following rare case (*Am. Jour. of Obst.*): A brief history of the patient is as follows: Mrs. S., Manistee, Mich., 32 years of age; married ten years; mother of four children, whose ages range from 9 to 5 years. She never had an abortion. The family history shows some consumptives and a case of epilepsy. A few

days after the birth of the first child the patient had inflammation of both breasts and the secretion dried up. She was unable to nurse any of her children, as her breasts never secreted again. Her health was excellent until six years ago, when she began to suffer from pain in the right ovarian region; this was almost constant, and was worse at time of her periods. A little later she noticed a "lump" in the right inguinal region, the size of a hen's egg; this gradually increased, until at the time of examination, April 29th, 1892, I found a tumor extending up to the level of the umbilicus, and uterus much enlarged. Her menstrual periods were normal until six years ago, when menorrhagia and dysmenorrhœa began. These increased from month to month, until at time of examination she was very weak and pale.

*Physical examination* revealed a uterus measuring over six inches in length internally and freely movable. The interior of the uterus was soft and spongy, and bled freely after careful introduction of the uterine sound. There was an ovarian tumor on the right side extending up to the umbilicus.

*Operation.*—I operated May 10th, 1892, at the University Hospital, in the presence of several physicians and the medical class, assisted by Dr. J. G. Lynds and my staff. As the uterus had been curetted, and she had received much treatment without benefit, I decided to remove the uterus and tumor, and did so—total extirpation. The patient made an excellent recovery and is now well, over nine months after the operation. An examination of the symmetrically developed uterus revealed the cavity of the uterus surrounded on all sides by fat from two to three inches in thickness; this was surrounded by the serous membrane, with a few fibres of muscular tissue, in all about one-sixty-fourth of an inch in thickness. Prof. Gibbes, our pathologist, made an examination of the same and reported as above. I do not recall a case just like this on record.

**Acute Peritonitis in the Newly-born.**—Casel (*Berl. klin. Woch.*) draws attention to the differences between the peritonitis of the newly-born and that of later childhood. Apart from the septic peritonitis which was not infrequent in former times, congenital syphilis, stenosis and atresia of the alimentary canal are recognized as causes of this affection. Not infrequently cases occur in which no such cause is present, and three instances are

here given. They occurred in infants aged 14, 12, and 21 days respectively. The mothers did not suffer from any puerperal affection. There was no evidence of congenital syphilis, and no stenosis of the intestine. The umbilicus was healthy. There was pain and tenderness in the abdomen, which was much distended, and presented a shining appearance, with enlarged veins over it. No fluid could be made out. The stools were irregular, and there was fever, with a tendency to collapse. Vomiting was only present in one case. In two of the cases the necropsy showed a circumscribed fibrinous peritonitis, chiefly about the transverse and ascending colon, as well as a catarrh of the intestine. The third case was thought to be one of suppurative peritonitis, as there were small abscesses present in other parts, but no examination was permitted after death. The diagnosis of peritonitis at this age is not always easy. There is, of course, no complaint of pain, and vomiting is mostly absent. As regards etiology, the author thinks that the peritonitis was here secondary to an intestinal catarrh, which was present in all three cases. The prognosis is bad. The third case seemed to be improving a little up to the time that abscesses appeared elsewhere. The author is of opinion that this peritonitis of the newly-born is not so very rare although owing to the absence of necropsies attention has not been directed to it.

#### SURGERY.

**Treatment of Appendicitis.**—Dr. N. Senn concludes an interesting paper on this subject as follows (*Col. and Clin. Rec.*):

1. All cases of catarrhal and ulcerative appendicitis should be treated by laparotomy and excision of the appendix as soon as the lesion can be recognized.

2. Excision of the appendix in cases of simple, uncomplicated appendicitis is one of the easiest and safest of all intra-abdominal operations.

3. Excision of the appendix in cases of appendicitis before perforation has occurred, is both a curative and prophylactic measure.

4. The most constant and reliable symptoms indicating the existence of appendicitis are recurring pains and circumscribed tenderness in the region of the appendix.

5. All operations should be done through a straight incision, parallel to and directly over the cœcum.

6. The stump, after excision of the appendix, should be carefully disinfected, iodoformized, and covered with peritoneum by suturing the serous surface of the cœcum on each side over it with a number of Lembert stitches.

7. The abdominal incision should be closed by two rows of sutures, the first embracing the peritoneum, and the second the remaining structures of the margins of the wound.

8. Drainage in such cases is unnecessary, and should be dispensed with.

**Drainage of the Non-Pregnant Uterus.**—Bonnaire (*Journ. de Méd. et de Chir. Prat.*) uses tubes in order to keep the uterine cavity patent so as to allow of the escape of discharges, to aid in topical medication of the endometrium, and to affect by their presence the nutrition of the uterus and its appendages. Rubber tubes, four-fifths of an inch in diameter and well perforated, should be used. The tube should touch the fundus and extend two-fifths of an inch beyond the os externum. It must not be introduced when any acute or subacute inflammation is present. Hegar's dilator or a tent will be needed to dilate the os. When the tube is introduced, great precautions are needed; the vagina must be plugged with iodoform gauze and the patient kept in bed. The tube is retained ten to twenty days. Every other day the iodoform gauze is removed and renewed and an injection thrown up into the uterus. Drainage of the uterus is especially needed in recent cases of metritis, and after the use of the curette in older cases of that affection. The practice is also useful in atresia and stenosis of the cervix, in ante flexion and retro flexion, and in hydro or pyosalpinx.

**Resection of Superior Maxillary Nerve and Meckel's Ganglion.**—Février, of Nancy, (*Seventh French Congress of Surgery*) has performed resection of the superior maxillary nerve and Meckel's ganglion for intractable neuralgia of the second division of the trigeminal nerve which had existed for twenty-two years. He made an incision along the lower border of the zygoma, resected the posterior portion of the malar bone, stripped off the temporalis muscle, caught hold of the nerve by means of a hook introduced into the pterygo-maxillary fossa, twisted and tore it off. The result was perfectly satisfactory, and there was

no return of the pain. During the operation a twig of the facial nerve was accidentally divided; this was followed by slight paresis of the orbicularis, which, however, speedily disappeared. The bleeding was very slight. Témoin, of Bourges, said he had performed a similar operation which was followed by temporary improvement. The patient, however, now suffered as much as before. Chalot, of Toulouse, said he had done the operation three times. The search for the nerve was a difficult procedure. The width of the pterygo-maxillary fossa was not always the same, and resection of the whole malar bone was sometimes necessary to give sufficient room. In only one of the cases had the cure been maintained for fifteen months.

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### Society Proceedings.

CINCINNATI OBSTETRICAL SOCIETY, MARCH 16, 1893.

DISCUSSION OF DR. STANTON'S PAPER.

DR. PALMER.—Mr. President: I have been quite well impressed with the operation, and I think it has a very favorable field opened up before it, but I am disposed to think that field is a limited one. While this operation encroaches upon podalic turning, the use of forceps and Cæsarian section, still I think its application is limited. It is indicated when the pelvic diameter of the brim is from  $3\frac{1}{4}$  to  $2\frac{3}{4}$  inches at the outside, but of course we can never estimate the size of the head or of the other diameters. It is interesting to estimate how much the pelvis is enlarged by the opening of the pubic bones. As I understand it, the separation of one centimeter (about  $\frac{2}{8}$  of an inch) amounts to about  $\frac{1}{12}$  of an inch. It is possible to safely separate the pubic bones about three inches, and that implies that you can elongate the anterior posterior diameter of the brim about  $\frac{3}{4}$  of an inch. You may estimate about  $\frac{1}{4}$  of an inch enlargement of the true conjugate of the brim to every inch of the separation of the pubic bones. I do not think it matters very much just how this operation is done. Some advise dividing the symphysis from below upwardly, and some from above downward. Some have used the curved director, and others have used various forms of the Galbiati knife. As to the Galbiati knife, I was much pleased with a diagram which recently appeared in one of the gynæcological

journals. It had not as large a curve as the knife exhibited here by Dr. Taylor, and it has not so heavy a handle. Another knife is one with a curved handle, which is used from above downwardly, and which certainly gives better opportunity for dividing the symphysis than the ordinary knife. I saw the case in which Dr. Zinke made the Cæsarian section. In this case the cervix was so obstructed by the formation of cicatricial tissue that the finger could not be introduced in the cervical canal, although she had been in labor some hours. It seemed a fair case in which to perform Cæsarian section. He had to dilate the os, so as to admit of drainage, before the Cæsarian section was made. If symphyseotomy had been made, of course it would have been very difficult to have compelled or drawn the child through the rigid os uteri. I have no doubt you can make an easy division of the symphysis pubis, but I have my doubts whether the parts will heal as readily if the section is not made with the knife.

Dr. John M. Withrow reported a case of cephalhæmatoma to the Cincinnati Obstetrical Society. The child was delivered in a perfectly normal labor and nothing unusual noted in its appearance. The next day the doctor's attention was called to the fact that the child's head was mis-shapen, and on examination a fluctuant tumor was found on the posterior part of the right parietal bone. He palpated and endeavored to make the child cry out but no impulse was given to the tumor. It did not extend to the other side and was not even in its contour, being a little more dense and permanent directly over the upper angle of the parietal bone, near the median line. He saw the case about once a week, for four weeks, when taking a brother physician to see a fine case of cephalhæmatoma he found the tumor entirely gone. The mother said that the tumor disappeared suddenly. Within forty-eight hours after she noticed the beginning of the decline the tumor was gone. His belief was that it would disappear gradually, occupying two or three months, while it disappeared in as many days. It existed altogether about thirty days after the delivery of the child.

Dr. E. S. McKee said he has experienced one case of cephalhæmatoma but without the fortunate result in the case reported by Dr. Withrow. The birth occurred in London, England, and although a breech presentation, the child was delivered without trouble or danger. The mother had given birth to thirteen children

during her 27 years of married life, six having died and two being still-born. The child seemed to be remarkably healthy when born June 3rd, 1881, but commenced having convulsions and soon had two per hour until its death the third day. Autopsy 24 hours after death: Between the scalp and pericranium a large effusion of blood, coagulated, extending over a great part of the left parietal bone and not surrounded by any indurated ridge. In the cavity of the arachnoid, corresponding in position to the outer tumor, a large and extensive clot of blood was found, causing a depression of brain in its deepest part, which was one inch to the left of the posterior fontanelle. The depression was one-half to three quarters of an inch deep. The effusion was larger than externally, reaching down to the foramen magnum. No ruptured vessels could be discovered. Other parts normal. The mother stated that three of her other children died of convulsions; an interesting question is, did they have cephalhæmatoma, and was there a hereditary tendency to this disease.

Varieties: Subaponeurotic, the simplest but not the most common form, a bloody effusion immediately under the cranial muscles. Subpericranial, situated between the pericranium and the cranial bones, the most common form. Diploic, situated within the diploë, a rare form and differing from others in that it continues to bleed when laid open. Subcranial, generally situated between the skull and dura mater and sometimes in the cavity of the arachnoid.

Treatment: The evacuation of blood by the knife is usually unnecessary and may do harm; as a rule, non-interference is best. If pus forms it should be evacuated. Pressure and the expectant plan of treatment is the best general rule. In treatment of the internal cephalhæmatoma, the external tumor being situated directly over the former and thus locating it, would it not be advisable to trephine the skull to evacuate the tumor? For further consideration of cephalhæmatoma the speaker referred to his writings on the subject, viz.:

*Cincinnati Lancet-Clinic*, 1893, XI., 317-324; *Nashville Medical and Surgical Journal*, 1886, XXXVII., 53-59; *Medical Register*, Philadelphia, 1888, III., 417-439; *Wood's Reference Handbook of the Medical Sciences*; *New York Medical Record*, 1885, XXVIII., 342-344; *Medical and Surgical Reporter*, LIII., 1885, 715-717; *Gaillard's Medical Journal*, XLII., 1886, 198-200.

## Book Reviews.

**The Elements of Human Physiology.** By ERNST H. STARLING, M. D., M. R. C. P. 12mo., pp. 436. With one hundred Illustrations. [Philadelphia: P. Blakiston, Son & Co. 1892. Price \$2.00.

This volume has much to commend it. The author has very judiciously omitted a consideration of anatomy and histology as being independent branches of study. On the other hand he has devoted more than the usual amount of space to be found in manuals to purely physiological chemistry and the chemistry of digestion. Throughout this book we find the author making efforts to render a clear understanding of his subject less difficult than it usually is, and he has succeeded well in his purpose. He is fully abreast of the latest advances, and is particularly happy in his methods of imparting the various means to be employed for the purpose of demonstrating the various problems connected with the fascinating study of human physiology.

Throughout the book, as we have said, we can see the author wasting no time on merely descriptive or anatomical details, preferring to devote his attention to a consideration of functions and the manner of their performance. The illustrations are diagrammatic but well selected, being in great part original, and aid greatly in a clearer comprehension of the text as well as of those pathological questions which depend for their elucidation and interpretation upon a clear conception of physiology. As an instance we may cite the representation of the various actions of the vascular system by means of tracings, such as those furnished by the sphygmograph, etc.

This book will no doubt meet with a large sale, and find its way into the hands of those desiring a good and reliable manual on the subject:

**International Clinics:** A Quarterly of Clinical Lectures on Medicine, Neurology, Pædiatrics, Surgery, Genito-Urinary Surgery, Gynæcology, Ophthalmology, Laryngology, Otology, and Dermatology. By Professors and Lecturers in the Leading Medical Colleges of the United States, Great Britain, and Canada. Edited by JOHN M. KEATING, M. D., JUDSON DALLAND, M. D., J. MITCHELL BRUCE, M. D., F. R. C. P., and DAVID FINLAY, M. D., F. R. C. P. Third Series, 1893, Vol. I. 8vo., pp. 361. [Philadelphia: J. B. Lippincott Co. 1893.

The volume before us is the initial one of the third series of the International Clinics. It is fully equal in merit to its predecessors, if not superior in many respects. The publishers have

been as lavish in the matter of furnishing most excellent illustrations and plates, and the contributors have fully done their part in the matter of furnishing instructive and entertaining lectures.

One of the features of these lectures, to which we have alluded on a former occasion, is that they are up to the times and pre-eminently practical. They contain the best thoughts of those teachers of America and Great Britain who have established for themselves positions which are enviable and honorable. In their lectures which are laid before us in these volumes we are treated to the fruits of their experience which has been tempered by mature judgment of a high order of excellence.

The value of these lectures is made all the greater from the fact that so many eminent teachers find representation, as also from the added circumstances that all the principal specialities of medicine and surgery are fittingly represented in an adequate manner. There is no disproportionate preponderance of any special topic, but, the editors, with rare good judgment, have allotted the space occupied by each one in proportion to the demands which naturally exist for it. The lectures are not unnecessarily prolix nor unduly brief. Sufficient space has been consumed to impart desired and needful information, yet compression has been exercised in order not to leave the interest of the reader flag.

That each series is of the highest value the continually increasing popularity of the work has shown. The sales are daily growing larger and the demand is steadily increasing. The material which is placed in such an elegant and permanent form before the medical profession is not intended for hasty perusal, but rather for earnest consideration and future reference. We cannot speak too highly of the International Clinics, and our advice to all is that they do not delay to possess themselves of these valuable volumes. If they will once take them, they will no longer do without them.

**System of Diseases of the Ear, Nose and Throat.** Edited by CHARLES H. BURNETT, A. M., M. D. In Two Volumes. Vol. I. 8vo., pp. 789. Illustrated. [Philadelphia: J. B. Lippincott Co. 1893. Price, Cloth, \$6.00; Full Sheep, \$7.00; Half Russia, \$7.50.

The plan of the present work has been to make a thorough treatise upon the subject of the diseases of the ear, nose, and throat. The investigations made in late years have demonstrated an interdependence existing among these organs, and a certain relationship in the morbid processes affecting them. In the book before us the pharynx, larynx, and the naso-pharynx are considered as forming the throat in a pathological point of view as well as anatomically.

The first volume, which is the one we have received, gives a consideration of the diseases of the ear in the first part, and those of the nose and naso-pharynx in the second. The first part consists of thirteen separate articles by as many authors, and we are pleased to note the excellent one on acute and chronic otitis externa, including otomycosis and cancer of the auditory canal by Dr. Robert Barclay, of St. Louis. In the second part ten well-known authors have contributed as many separate articles of the highest value to practicing physicians as well as to specialists who will find many little points mentioned which are of more than passing interest, as they embody the results of particular personal methods.

We are somewhat surprised to find that no reference whatever is made to the JOURNAL in the article on screw-worm of the nose and accessory sinuses, as it published the most exhaustive articles on the subject several years ago.

The entire work we can truthfully say is one of the best so far issued upon the subjects with which it deals. In the present volume twenty-four plates are inserted besides several hundred figures, all executed in the highest style of modern pictorial reproduction. The publishers have made it a point to have everything connected with the mechanical execution of the work in the best style possible, and they have certainly succeeded in this aim. We expect to see the System of Diseases of the Ear, Nose and Throat score a great success both financially and as a truly valuable addition to medical literature.

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### Literary Notes.

**Books Received.**—The following books have been received and will be reviewed in the JOURNAL:

The Elements of Human Physiology, by Ernest H. Sterling, M. D., M. R. C. P. 12mo., pp. 436. With one hundred Illustrations. [Philadelphia: P. Blakiston, Son & Co., 1892. Price, \$2.00.

Sulla Origine dei Corpuscoli del Sangue, Ricerche del Dott. Vincenzo Allara. 24mo., pp. 155. [Milano: C. Chiesa and F. Guindani, 1893. Price, lira 2.50.

System of Diseases of the Ear, Nose, and Throat, edited by Charles H. Burnett, A. M., M. D. Vol. I. 8vo., pp. 789. Illustrated. [Philadelphia: J. P. Lippincott Co., 1893. Price, Cloth, \$6.00; Full Sheep, \$7.00; Half Russia, \$7.50.

Appendicitis and Perityphlitis, by Charles Talamon, M. D., translated by E. P. Hurd, M. D. Physician's Leisure Library. [Detroit: Geo. S. Davis, 1893. Price, 25 cents.

**New Dress for the Microscope.**—Says the editor of the *National Medical Review*: "Our first literary off-spring, *The Microscope*, now thirteen years of age, appears in a new dress, precisely like that of its younger brother, *The Review*. This is, of course, very proper, as we now have a two-year-old at home and a thirteen-year-old in the charge of Prof. Smiley of this city. *The Microscope* starts as Volume I., new series, for 1893, and is especially devoted to the needs of naturalists, physicians and druggists. The subscription price is one dollar a year. Address Chas. W. Smiley, Box 630, Washington, D. C."

**The Medical Review** of St. Louis is now under the editorial charge of Dr. L. T. Riesmeyer, Dr. Ohmann-Dumesnil its former editor having retired to devote the time formerly occupied in editing it to his new publication the *Quarterly Atlas of Dermatology*.

**The Quarterly Atlas of Dermatology** has made its appearance. It is an octavo quarterly publication each number of which contains six full-page photo-engravings on plate-paper, together with descriptive text, and a department devoted to formulæ. The subscription price is \$1.00 per annum. The editor of our young cotemporary is Dr. A. H. Ohmann-Dumesnil.

**Appendicitis and Perityphlitis** have and are occupying so much attention that any new literature upon the subject is *apropos*. A duodecimo of 210 pages with the above title has just been issued by Geo. S. Davis, of Detroit. The author of this interesting little monograph is Charles Talamon, the well-known Physician to the Hôpital Tenon, of Paris. Dr. E. P. Hurd has translated the original in a pleasing way. We can commend this little book to all practitioners of medicine as it is a very good résumé of the entire subject, and is largely devoted to the diagnosis of diseases of the cœcum. Treatment is by no means neglected, and the author insists upon medicinal measures as well as surgical. This booklet is published at the same price as other numbers of the Physician's Leisure Library—25 cents.

**The Origin of the Blood Corpuscle** has been a problem of physiology, and it is far from being finally determined yet. The best minds have been engaged in the work of solving the question, so that every fresh accretion is always hailed with pleasure. Dr. Vincenzo Allara, of Milan, has written a very interesting brochure of 155 pages which we can recommend to the careful perusal of those who understand the Italian. The author first passes into review the various theories which have been advanced by differ-

ent authorities. He next studies the subject of development and then gives the results of his personal researches. He then compares the theories which have been advanced with the results of actual researches, and in closing the work he formulates his conclusions which may be stated, in brief, to be that the blood corpuscles originate from the "mucous" cell which is itself a derivative of epithelial origin. In other words, it is an epithelial product of the internal blastodermic membrane. Moreover, it is formed during embryonic life, and later giving rise to the white mono- or polynuclear white cells, or to the red corpuscles. In other words, it is hæmopoietic and consists of primal protoplasm; or, if the expression were permitted, it is *proplastic*.

The price is lira 2.50, the publishers being C. Chiesa and F. Guindani, of Milan.

Bulletin of the Harvard Medical Association, No. 4, has reached us. It is a large octavo of sixty-eight pages printed in the same high class style as characterizes all the publications of this association. This number is devoted to the new methods of teaching inaugurated at Harvard, besides a very interesting article on Diphtheria and Scarlet Fever at the Boston City Hospital by Dr. A. L. Mason. We are sure that the further issuance of these bulletins should be encouraged by liberal support at the hands of all Harvard medical alumni as well as of those not fortunate enough to claim this University as their Alma Mater.

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## Melange.

**Medical Advertising in Texas.**—The horrors of medical advertising are familiar to all newspaper readers, says *Printer's Ink*, but rarely do they present themselves in a more insidious and distressing form than in the announcement of the Houston Chemical Co., of Houston, Texas. It occupies a space three columns wide. At the head are the portraits of Dr. Splitbark and Dr. Harding. Dr. Harding wears heavy whiskers and a diamond the size of an egg. About Dr. Splitbark's personality there is more mystery.

Half of the advertisement is occupied with pictures of various squirming reptiles, from which the chemical company is prepared to relieve suffering humanity.

The following reading matter brings the medical status of the disease within the easy comprehension of the unlettered:

"No. 1 represents the snake; No. 2 the scorpion; No. 3 the

snail; No. 4 the lizzard; No. 5 the bott worms; No. 6 the snake worms; No. 7 the stomach worms; No. 8 the thread worms; No. 9 the seat worms; No. 10 tape worms; No. 11 the sucking worm; No. 13 the blind eel or blind worm; drank in water they grow in the stomach, creep up the spinal column, causing pains and aches in the back and spinal column.

"Tape worms removed alive in two hours, head and body complete, with the Great Indian Tape Worm Dead Shot. Seat, pin and stomach worms removed by the Great Indian Worm Powder. Dr. G. R. Harding, now with the Houston Chemical Company, is the only man in this country that can remove the above life germs from the human body.

"Fifty per cent. of cases of dyspepsia and diseases of the liver and stomach are caused by worms, snakes, snails, snake worm, seat, pin, thread and stomach worms. They weaken and prostrate the whole system, and reduce circulation, often throwing the person into spasms and weak nervous spells."

The idea of the scorpion, shown in the cut, "growing in the stomach," and crawling up one's spinal column, should be alarming enough to suit the most sensational advertisers.

**American Medical Association.**—As our readers are well aware, the American Medical Association will meet in Milwaukee, June 6th to 9th inclusive. The Wabash Railway affords unusual comforts and facilities, at convention rates (one and one-third fare). The day train, which leaves St. Louis at 9 A. M., and arrives at Chicago at 5:10 P. M., is a solid train, equipped with library, dining and parlor cars, thus giving all the comforts attainable to modern travelling to its patrons. The Wabash arrives in time to connect with all the railway and water lines leaving Chicago for Milwaukee. We are sure that all those contemplating taking a trip to the meeting at Milwaukee could do no better than go by the Wabash, as they will have two days on the return trip to attend the World's Fair, if their inclinations are that way.

**The Missouri State Medical Association** held a successful meeting at Sedalia last month, the attendance being large and three working sessions being held daily. The meeting for next year will be held at Lebanon, where the well-known Gasconade Hotel is located. We cannot, at the present, devote more to the State Association owing to lack of space. In our next issue we will endeavor to give more.

## Miscellaneous Notes.

I am happy to state that Cactina Pillets have been invaluable in my hands, especially in the treatment of long-continued fevers, such as typhoid. Their action on the heart was most marked in a case of typhoid, patient 68 years old. I use them during all the stages of the disease to keep the heart right; and they most certainly do this. Tobacco heart, as others have found, is most amenable to their influence.

JOHN S. BOOTIMAN, M. B., B. S.,  
South Shields, England.

### Chronic Nasal Catarrh.—

R Creasote (Beech Bark) .....  $2\frac{1}{2}$  minims.  
Glycerine Conc .....  $\frac{1}{2}$  drachm.  
Kennedy's Ext. Pinus Can. (dark) .....  $\frac{1}{2}$  drachm.

M.

Cleanse both the nostrils out thoroughly with warm rainwater and pure sweet milk, equal parts, with a small quantity of table salt dissolved therein. After which apply to the inside of the nostril the above mixture, requesting the patient to snuffle sufficiently strong to give him a creasotic taste to the mouth.

I find Peacock's Bromides of great service in uterine congestion.

JOHN MATHER, L. F. P. S.,  
Haddington Laboratory, Haddington, Scotland.

**A Bad Record.**—There has been of late a shocking prevalence of deaths due to abortions produced in order to prevent the results of pregnancy and conceal the evidence of crime (*Med Rec.*). Nearly twenty cases have been reported within a short time.

**Administration of Piperazin.**—Some practitioners who have had much experience with piperazin now recommend its administration in tea. A good method is to prescribe five grammes in a five-ounce solution of water, and direct patient to take one-fifth per day (*i. e.*, eight teaspoonfuls) in teaspoonful doses added to a cup of weak warm tea.

**A Palatable Preparation of Senna.**—Bartholow says that senna would be one of our best cathartics "if it were not so disagreeable." This disagreeableness is not only removed, but pleasantness is put in its place in that preparation of senna known as Syrup of Figs. It forms the active principle of that effective laxative, and because of the pleasant taste of the combination it has a large use in all cases where a general laxative is indicated.

**Lepers in Hawaii.**—There were 1,115 lepers at the leper settlement in Hawaii April 1, 1892.

**Iodine Combinations.**—The combinations into which iodine enters with potassium, sodium, ammonium, arsenic and iron have long been considered the remedies where so-called alterative medication is the ideal desideratum. Latterly, the attention of the profession has been directed to the iodide of calcium, by Prof. Germaine Sée of Paris, in which the advantages over iodide of potassium are expressly emphasized. The elixir iodo-bromide of calcium compound, manufactured by The Tilden Co., of New Lebanon, N. Y., contains this valuable ingredient, and the results achieved by it in the treatment of syphilis, tuberculosis and allied diseases establishes the usefulness of the elixir at first glance.

**A Good Smeller.**—In the daily press we note this report: "The means of death was easily understood as the smell of morphia filled the room." The reporter has an exceptional nose.

**The Salo-Sedatus Chemical Co.** are receiving letters of commendation from all parts of the country regarding Salo-Sedatus:

ELDARA, ILL., March 13, 1893.

SALO-SEDATUS CHEMICAL Co., St. Louis, Mo.

Please send me some more Salo-Sedatus, for which I enclose required amount. I like it very much indeed.

JOHN W. MURPHY, M. D.

JERSEY CITY, N. J., March 16, 1893.

SALO-SEDATUS CHEMICAL Co., St. Louis, Mo.

Enclosed find one dollar for one ounce of Salo-Sedatus. I used what you sent me with great satisfaction to myself and relief to my patients. It is certainly the best medicine I have ever used.

R. W. PEACOCK, M. D.

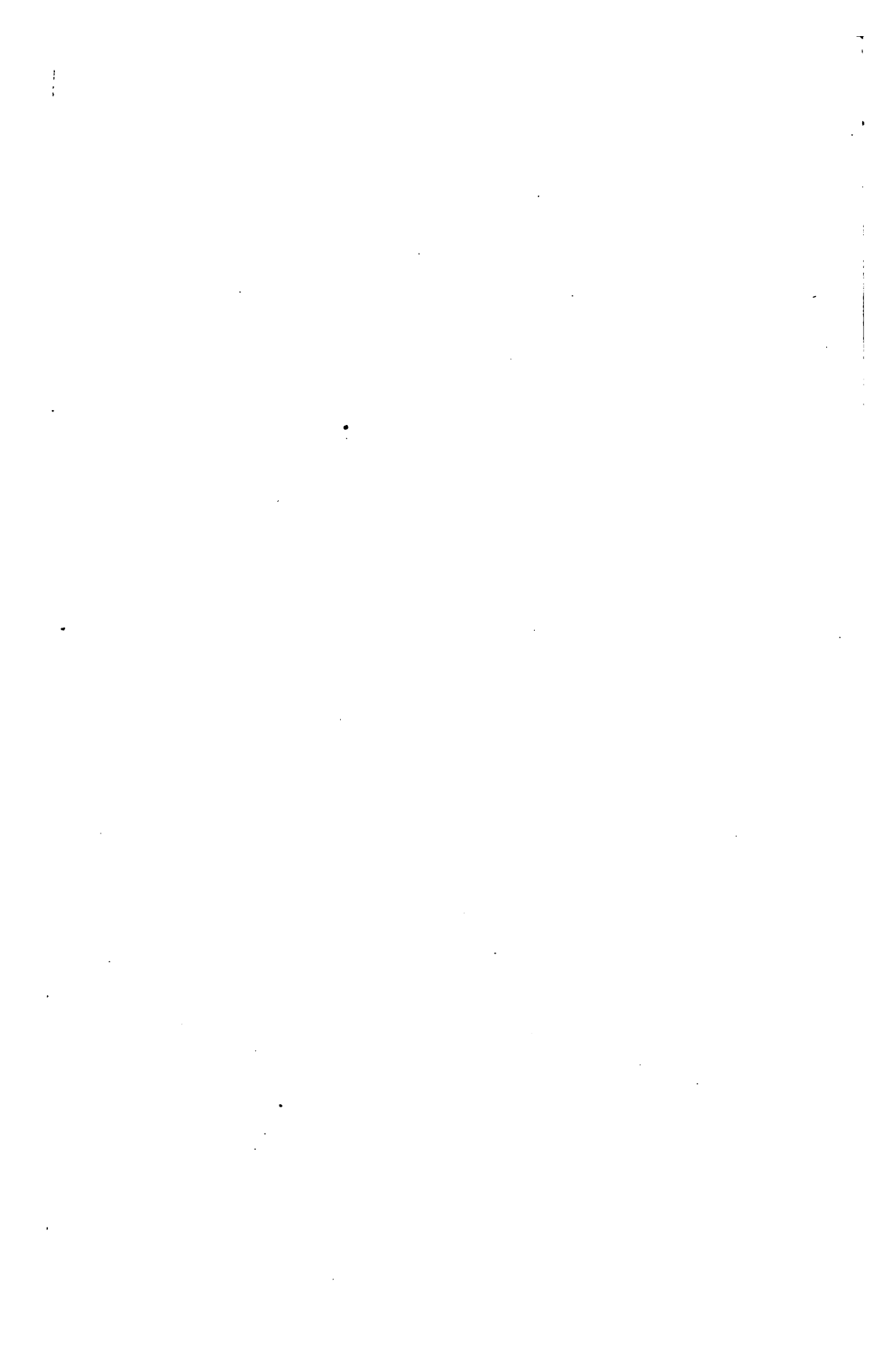
**Excision of the Ossicula** is not always free from danger. Wurdemann reports a case in which vertigo and complete deafness followed and was attributed to hemorrhage into the labyrinth.

We call the attention of our readers to the attractive and distinctive Antikamnia advertisement in this number. The firm gladly sends samples free to physicians who will furnish their address.

**To Cure Leucorrhœa** is easy enough if you know how. We will tell you how to do it. Use Chloro-Phénique. See?









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903+

